The Newspaper of the Industry

Member Audit Bureau of Circulations



Issued Every Monday at 0 W. Fort St., Detroit 26, Mich.

March 28,

Vol. 56, No. 13, Serial No. 1045 Established 1926.

Reentered as second-class matter October 3, 1936 at the post office at Detreit, Michigan, under the Act of March 3, 1879. Trade Mark Registered U. S. Patent Office. Copyright, 1949, by Business News Publishing Co.

Story of the Week **Add Sports Stories** No Argument with a Redeker Story to End All Such Stories The 'Corn' Is Green In England, Too They're Sore as Hell One Billion Dollars The Job Is URGENT Requiescat In Pacem From Our Mailbag

Story of the Week

An English subscriber contributes this item:

Flossie stood at the bar of her neighborhood "pub," hoisting a dram of whiskey, when an old friend entered.

"Hi, Floss," he greeted her, insouciantly. "I see you're 'avin' one."

"Na-a-ah!" bridled Florence, "it's this billowy old dress I'm wearin' that makes me look that way.'

Add Sports Stories

On the very night when newspaper headlines screamed that football relations between Harvard and Princeton had been broken off (this was a long time ago) a Princeton alumni banquet was in progress. Each alumnus attending this affair was required to stand upright and state his name, graduation date, occupation, marital status and number of offspring (during one section of the program).

Having gone out for a short beer, and having read the newspaper headlines while slupping his schuper, one waggish Princetonian returned just in time to hear his name called. He arose and rattled off the following information:

"Perkins, class of 1891, attorneyat-law, not married, three childrenall attending Harvard."

No Argument with a Redeker

Speaking of sports stories, here's one-right out of our mailbag-from the father of our esteemed Editorial Director:

Chicago, Ill.

I read your "Inside Dope" on baseball stories with a great deal of inter st. It brought back to me memories of my own baseball experiences.

"Way back when" I was manager, according to my dope, of the "World's Y. M. A. base Champions" -The E ball club (Epworth Young Mens Association of Elgin, Ill., a church

The E. Y. M. A.'s defeated the Elgin White Sox, the Elgin White Sox defeated the Danville semi-pro team and Danville defeated the Chicago Cubs of the celebrated 'Tinker to Evers to Chance' fame-the then world's Pro Champions. Doesn't that make my club eligible for the "World's Champions" title?

J. J. REDEKER

P. S. One of our pitchers was Erwin Renfer, who later became a star on the Detroit Tigers (American League). McDonald, a catcher on the Elgin team, went on to become a star on Connie Mack's Athletics. So you see we were no 'Pikers' at playing baseball.

Story to End All Such Stories

An iconoclast who has debunked the old platitude about selling refrigerators to eskimos is Philco dealer Lee Nerland. Situated in Fairbanks, Alaska, Mr. Nerland not only lists among his customers several Eskimo (Concluded on Page 10, Column 1)

Westinghouse Finance Plan Soon

NEW YORK CITY-Westinghouse Electric Corp. will soon announce an equity financing plan covering its air conditioning equipment, fans, and compressors, C. F. Gilbert, manager of the company's retail finance division, indicated here recently.

He added that milk coolers and industrial type air conditioning systems would be covered later.

Westinghouse has already established an equity financing plan for home appliance dealers and distributors.

Equity financing is an idea being tried out currently by a few large manufacturers to help their dealers and distributors obtain sufficient credit from local banks to stock adequate inventories while still protecting their working capital.

The Westinghouse plan for home appliance dealers assures the bank that the distributor or the manufacturer will buy back any of its products the bank repossesses at certain specified rates, thus lessening the bank's risk.

It further offers a floor plan financing arrangement and a protective insurance against damage and fraud

Gwilym A. Price, Westinghouse president, recently stated that the company is attempting to gain acceptance for the plan by holding educational conferences for bankers in various localities and by personal solicitation by headquarters repre-

Jan. Freezer Sales Up 30% from Dec.

NEW YORK CITY-January sales of electric farm and home freezers by 31 companies reporting to the National Electrical Manufacturers Association were 30% above December, the association has announced. A total of 27,230 units were sold, 266 of them outside the United States.

Sales were up sharply in four, and down considerably in two categories as compared with the previous month. Sales of units of less than 5-cu. ft. capacity rose from 71 to 1,350. The 7 to 8.9-cu. ft. group, in which the largest number of units was sold,

jumped from 5,490 to 9,444. The 11 to 12.9-cu. ft. class soared (Concluded on Page 29, Column 2)

Rema Membership Meeting Set for Chicago This Week

CHICAGO - Refrigeration Equipment Manufacturers Association will hold its annual meeting at Edgewater Beach hotel here starting Thursday, March 31 and continuing to April 2.

The general membership meeting will be held Friday morning, April 1, at which time the Rema members will hear reports from President H. F. Hildreth and other officers. Progress reports will be made on such activities as the Sixth All-Industry Show, credit service, ASA-B9 code, and RISAC.

Rep. Fred Crawford of Michigan will speak at the Friday afternoon session, together with James L. Allen of Booz, Allen & Hamilton. As a concluding entertainment feature, motion pictures will be shown of the Rose Bowl football game between Northwestern and the University of California.

Joint meeting of Rema-Rewa boards, an export section meeting, and product section meetings are scheduled for Thursday. A cocktail party and banquet will be held Thursday night.

Parts Depots To Expand Equity Set Up In G-E **Commercial Plan**

Promotion Meetings Outline Price Protection, 'Shirt Sleeve' Sales Drive

BLOOMFIELD, N. J. - Announcement that the air conditioning department of General Electric Co. is setting up new parts depots throughout the country was made at a series of sales meetings held recently in major cities by the department.

It is expected that 50 to 75 depots will be established, permitting users of G-E refrigerating machine equipment to obtain replacement parts within 24 hours. Depots are being selected from eligible G-E distributors or local refrigeration supply wholesalers, "whoever is best fitted to do the job-but only one in each area," a spokesman said.

Announced purpose of the parts depot plan is "to make the most of the huge replacement condensing unit market." Operation of the plan was explained as follows:

"G-E will sell condensing units direct to both wholesalers and full-line distributors. Parts will be sold only (Concluded on Back Page, Column 1)

Jordon Offers Price Protection Policy

PHILADELPHIA-Jordon Refrigerator Co. has announced that it will protect all distributors and dealers against price decreases for the 90day period ending June 30.

The company said that it "does not foresee any price reductions at any time in the near future" and that it is backing this conviction with the price protection policy in order that dealers and distributors "may have no fear in maintaining adequate stocks for the proper merchandising of Jordon refrigerators."

(Concluded on Page 4, Column 1)

EEI Convention Will Open April 4

NEW YORK CITY-The outlook for the appliance industry, new possibilities with home freezers, and the automatic electric laundry as a load builder are three of the subjects to be discussed before the residential section of Edison Electric Institute during EEI's 15th annual sales conference.

The conference will be held April 4-7 at the Edgewater Beach hotel in Chicago. It will consist of a home service conference April 4; meetings of the industrial power and heating, commercial sales, farm, and residential sections April 5; and general sessions April 6 and 7, plus special events and exhibits.

(Concluded on Page 29, Column 2)

Do You Gamble On Trade-Ins?

What are used refrigerators really worth?

Unless a dealer really has some basis for determining the actual value of a used model, he's taking a big gamble every time he takes a trade-in.

Starting in this issue is an analysis of used refrigerator values, written by a man who has been specializing in the actual buying and selling of used models. (See page 8.)

Price Reductions **Harvester Cuts**

Refrigerator Line

CHICAGO - International Harvester Co. made effective March 18 price reductions on its 1949 models of household refrigerators averaging

The price reduction was the greatest on the company's standard refrigerator, amounting to \$30.25 or 12.1%. On the deluxe model, the reduction was \$15.25 or 5.5% and the super deluxe refrigerator price was reduced \$25.25 or 7.8%. Prices of the company's line of home freezers remain unchanged.

The revised suggested list prices for the respective models will now. be \$219.75 for the standard model, \$259.75 for the deluxe model, and \$294.75 for the super deluxe refrigerator. All prices are f.o.b. the fac-

All International Harvester refrigeration distributors and dealers will receive price adjustments on the 1949 refrigerators presently in stock.

Harvester officials pointed out that the price reductions came about as a result of the competitive situation now existing within the refrigeration industry and would not otherwise be justified either by profit margins or by any reduction in the cost of producing and distributing these pro-

Ward Refrigerator, Freezer Prices Lower

CHICAGO-Ratail stores of Montgomery Ward & Co., which have permission to adjust appliance prices to meet competition, have generally announced price reductions on refrigerators and home freezers.

New prices of these products on which price reductions were generally made are:

Refrigerators. Standard 7.5-cu. ft. model, \$184.95; deluxe 7.5-cu. ft. model, \$209.95; supreme 7.5-cu. ft. model, \$234.95; 9.5-cu. ft. model,

\$249.95; and 8.8-cu. ft. model, \$294.95. Home freezers. 7.2-cu. ft. model, \$219.95; 12.5-cu. ft. model, \$329.95.

Westinghouse Cut Affects Ranges Only

MANSFIELD, Ohio-Westinghouse has reduced prices on two 1949 electric range models, but has not cut prices on 1949 electric refrigerator models, company officials announced.

Range model E-64-49 has been reduced \$25 to \$189.95, 64-49 has been reduced \$15 to \$229.

While 1949 refrigerator prices have not been reduced, some retailers are making deep slashes in 1948 model prices. Wanamaker's New York store announced a 9.33-cu. ft. Westinghouse (a 1948 model) at \$229, a reduction of \$40.

March Appliance Sales Improving In San Diego

SAN DIEGO, Calif.-The downward slide in appliance sales came to a sharp halt here early this month with some local dealers reporting business in the first two weeks of March equaling or exceeding their volume for all of February, according to the Bureau of Radio & Electrical Appliances of San Diego County.

"Distributors, too, are generally reporting much stronger business this month," the bureau declared. "This is just one more indication (as was our experience in seeing Christmas buying revert to normal) that we are gradually returning to the somewhat seasonal routine the appliance industry knew before the war."

UEW Charges Falsity In Plant Layoff Figures

Appliance Producers Comment on Union Claim Of Big Employment Drop

NEW YORK CITY - Government figures have "seriously understated" the actual extent of unemployment, the United Electrical, Radio & Machine Workers of America, CIO, has charged, and the union's president, Albert Fitzgerald, has called on President Truman in a letter to take 'bold steps" to meet the situation.

In Washington a union representative said that there were 4,700,000 unemployed at the end of February, or a million and a half more than the Bureau of Census estimate of 3,220,000.

(The union's statements were seen as "preparation" for demands for a shorter work week with little or no decrease in weekly pay, as a means of spreading employment.)

The union said that 80,000 of its members lost their jobs during the last six months of 1948, and that unemployment was spreading now. It said that Frigidaire officials had told Dayton UEW local officials to expect a layoff of 2,000 workers by April 1, and that layoffs were also being made by G-E, Westinghouse, and other major appliance producers.

Frigidaire officials denied ming a statement setting a layoff figure, but declared that large stocks of products had been built up, and that the situation was being surveyed. It was indicated that a plan was being considered to reduce the work week to spread employment over as many workers as possible.

The Westinghouse appliance division stated that its April production of electric ranges, "Laundromat" automatic washers and driers, and some small appliances would be reduced from 12 to 30%, but that no cut in refrigerator production was contemplated. Production of ranges (Concluded on Page 4, Column 3)

IN THIS ISSUE

That old "bugaboo," the household refrigerator trade-in problem, is back again. On page 8, two experts who have handled thousands of used refrigerators give you some cold, hard facts based on their experience. Don't skip these straight-from-the-shoulder

How much actual merchandise will the sections of a refrigerated vegetable or dairy display case hold? An article on page 11 gives the answers, as dug up by McCray Refrigerator

An industry manufacturer's definition of frozen custard, published in a recent issue, didn't satisfy another freezer producer. Read the latter's side of the matter on page 21.

. . . "The better you serve, the easier you sell." How Z. O. Jennings, Little Rock, Ark., commercial refrigeration dealer, applied this philosophy to build up an enviable sales record over 25 years is told on page 16.

How a parts wholesaler can economically stock compressor gaskets is described on page 15. The story is illustrated with a sketch and photograph of a gasket rack now in actual

Departments: Key to Air Conditioning, page 28. . . . Paul Reed, page 31. . . . What's New, pages 26-27. . . . Telling & Selling, page 22. . . . Editorial, page 14. . . Patents, page 30. . . . World Trade News, page 20.

Carrier Sets \$1 Million Ad Program To Tap Huge Market for Air Conditioners, Freezers

By C. Dale Mericle

DETROIT—Introducing two new self-contained air conditioners and a new upright freezer to its dealers from the Michigan-Ohio territory, Carrier Corp. informed its sales outlets that it would back them up with the largest advertising budget in company history—more than \$1,000,000.

Some 200 dealer principals and representatives attended the one-day meeting in the Rackham building here recently sponsored by James & Roach, Detroit area distributor, which featured talks and demonstrations by Carrier factory and district officials.

Aiming at a self-contained air conditioning market which Carrier believes will total \$1,000,000,000 over the next 10 years in new sales alone, the company has added a 1-ton model 51H2 deluxe console to its room unit line, and a 7½-ton model 50T8 to its store-type conditioners.

Prices have been reduced sharply on the ½ and ¾-hp. window units, which are said to have a number of refinements over previous models, as do the other models in Carrier's self-contained equipment line.

The 51G1 ½-hp. window model lists at \$349.50 f.o.b. Syracuse (about \$50 less than last year), while the 51G2 ¾-hp. model is priced at \$429.50 f.o.b. Syracuse. The latter model is also available for 230-volt operation at \$439.50.



W. C. Egan, product manager for Carrier room units, introduces the new 1-hp. model at the Detroit meeting. Aiding his presentation was an attractive model. Sign pertains to a feature of the unit.

Price is also being emphasized on the new freezer, a large, heavily insulated, upright in two sizes—15-cu. ft. and 30-cu. ft. The 14C5 (15-ft.), said to have a capacity of 500 to 600 lbs. of food, carries a price of \$499.50 delivered in the Detroit-Toledo area, and the 30-ft. model 14C7 is \$769.50 in the same area.

First speaker on the program, E. A. Meling, product manager of self-

contained equipment, who emphasized that "we have only skimmed the cream off the air conditioning market," gave dealers and distributors details on Carrier's line of six big self-contained units—the 3, 5, and 7½-ton models in the 50T series designed primarily for installation within the conditioned area, and the 10, 15, and 20-ton units in the 41B line intended for remote location.

"The four outstanding customer

features of the new 7½-ton 50T8 model and the others in the series are (1) quiet operation; (2) long life and low upkeep; (3) more air conditioning per dollar, and (4) the units look and blend well with any surroundings," Meling declared.

In discussing the larger 41B series of 10, 15, and 20-ton Weathermaker self-contained units designed for central-station type installations, Meling emphasized that these machines have larger coils, and that the 15 and 20-ton models are marked by increased B.t.u. capacity over previous units.

Carrier's new 1-hp. room air conditioner was introduced by W. C. Egan, product manager of room units, with the air of an attractive model.

Sales prospects for room units are excellent, Egan told the group.

"In 1948 room air conditioners were a \$40,500,000 business, and 1949 should be a greater year. We're in a growing business.

Pointers on Increasing Sales of Room Units

"Large dollar volume on room units, however, will come to the dealer who takes advantage of his opportunity by:

"1. Having a proper display on his floor with at least one model oper-

"2. Using the selection form to figure loads easily and correctly and determine the proper size of machine needed.

"3. Exhibiting in local shows."4. Using classified telephone book

advertising.
"5. Canvassing by telephone.

"6. Making personal contacts.

"7. Having an adequate sales force.

"8. Using direct mail, newspaper, and radio advertising, and arranging for publicity stories.

"9. Making post-sale 'call-backs' because customer satisfaction creates more business.

"10. Encouraging your servicemen to be 'salesmen.' Have him repair both the unit and the user's state of mind.

"11. Plugging the line's cooling capacity.

"12. Making clean, tidy installa-

Present Users Are Powerful Means of Multiplying Sales

Egan emphasized that the users should be used in creating more sales. Surveys have shown, he said, that the average ownership amounts to 2.9 room units per customer. while a study of 500 present owners indicated that 47% would buy more units.

Carrier's advertising and promotion plans for the year were outlined by D. W. Hoppock of Syracuse and F. E. Purcell, manager of merchandising in the Cleveland district.

"Much of Carrier's largest advertising budget will promote self-contained air conditioners," Hoppock informed the dealers.

The program will include a series of four-color full pages in the Saturday Evening Post plus a series of five monthly straight product advertisements in the Post and Nation's Business, he said.

Cooperative local advertising will be continued, but this year there will be larger selection of mats, and distributors and dealers will be permitted also to apply credit on radio advertising.

Four direct-mail campaigns involving three mailings each have been lined up for the year, Hoppock added. These are planned for spring, hot weather, fall, and holiday mailings.

In addition, Carrier is promoting National Store Weathermaker Week from April 11 to 18, and is offering to pay half of dealers' local tie-in advertising during that week without charging it against the regular unit advertising allotment, he stated.

Advertising and promotion specifically featuring room air conditioners include space in the *Post, Time, Tourist Court Journal, AIR CONDITIONING & REFRIGERATION NEWS, and Electrical Merchandising,* dealers were informed by F. E. Purcell.

The new line of food freezers, which includes a 15-cu. ft. and a 30-cu. ft. upright model, was introduced by F. W. Smith, product manager, aided by Mrs. Ruth Seaton Hicks, home economist, who demonstrated methods of preparing foods for freezing.

Finger-tip control of temperatures from 0° F. storage down to extra low quick freeze levels and a simplified inventory arrangement known as the "Stock-Aide," are among the features of new model 15 and 30-cu. ft. food freezers.



The 15-cu. ft. Carrier food freezer, part of a two-model line introduced at the meeting.

'Stock-Aide' Shows

What Freezer Holds

The Stock-Aide, an exclusive Carrier feature, is an inventory index arrangement of sliding bars and tabs in front of the shelves that tells the contents at a glance. The bars have the added feature of serving as a brace to hold the food packages firmly in place when the shelves are fully loaded.

Cabinets, finished in white baked enamel, are of all-steel construction mounted on extra heavy angle iron framework. All exterior seams are welded and sealed to protect insulation against moisture and other sources of deterioration. Insulation is Fiberglas, 6 in. thick throughout on the 30-cu. ft. unit; and 5 in. on all sides of the smaller unit with 6 in. in the door and top.

Temperature is controlled thermostatically by a compact and neat control dial located inside the freezer, providing a selection of temperatures ranging from 0° F., for storage, downwards to extra low levels.

The compressor, condenser, refrigerant control, and evaporator plates are all assembled into one hermetically sealed unit, dirtproof and requiring no oiling. A capillary control regulates the flow of refrigerant into the evaporator plates. The refrigerant is "Freon-22."

Sales-Creating Ideas For Freezer Dealers

"How are we going to sell these units?" Smith commented. "If I were a dealer, I would:

"1. Display operating freezers full of food.

"2. Use this freezer for myself."3. Have a complete line of packaging material and know how to use

"4. Get 'bird dogs' and know every locker plant, every REA utility, public utility, county agent, frozen food distributor, and home demonstration agent in my territory, and put on 'freezing bees' for groups of people.

"I would also demonstrate to prospects how they can:

"1. Save money by buying meat

from locker plants.

"2. Save money by buying fresh meats at bargain prices and freeze them at home.

"3. Save money on chickens and poultry.

"4. Save money on fruits and vegetables.

"5. Save money on prepared foods by quantity purchases and have 'planned-overs' instead of 'left-overs.'

"6. Save money on baked goods.

"7. Save money on ice cream through quantity purchases.

"8. Prepare ahead of time for parties and guests.

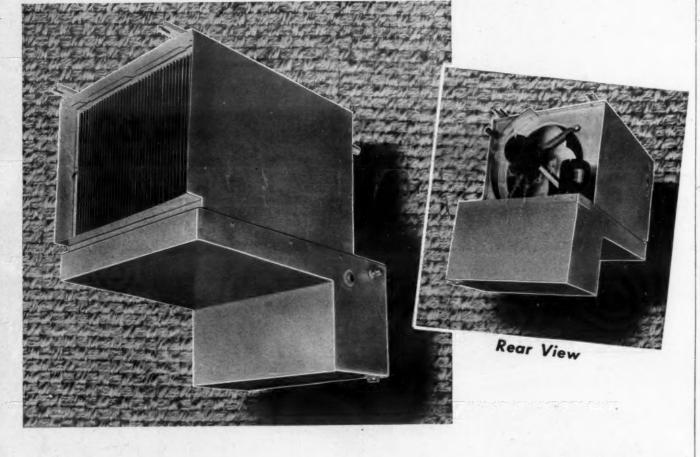
"You can show prospects," Smith declared, "how they save each month more than the cost of their payments, and, incidentally, this box does not come under Regulation W."

After this presentation, Purcell discussed the company's humidifier, and D. B. Arnold, Cleveland district manager who had more or less "emceed" the program, and James L. Gillon, Detroit dealer, discussed briefly Carrier's dehumidifier unit.

Final note of the meeting was sounded by J. A. Gazelle, dealer sales manager for Carrier, who emphasized the tremendous market for both freezers and air conditioning, but cautioned:

"Don't kid yourself. People are tightening up the old pocketbook. Now we must realize that we have to go out and sell. We're soft. We don't know how to make a sale.

"We have to go back where we were 10 years ago in selling."



THE REALLY NEW EVAPORATIVE CONDENSER by KRAMER

OPENS OPPORTUNITIES IN THE SMALL TONNAGE FIELD!

Small Capacities - 2 to 8 tons • Single or Multi-Circuits
Stainless Steel Sump • Extra Large Water Delivery
New Type Packless and Greaseless Pump • Bare Tube
Coils • No Nozzles • No Belts • Low Cost • For Freon,
Methyl and Ammonia

WRITE FOR BULLETIN R162B

KRAMER TRENTON CO. Trenton 5, N. J.

THERMOBANK COOLMASTER RADIAL UNITS PANEL UNITS CUBERS FINNED COILS BARE TUBE COILS HEAT INTERCHANGERS CONDENSERS AIR Cooled, Water Cooled, Evaporative WATER COOLING EVAPORATORS BLAST COOLING COILS BLAST HEATING COILS.

LEARN WHY LA CROSSE IS THE STANDARD OF COMPARISON



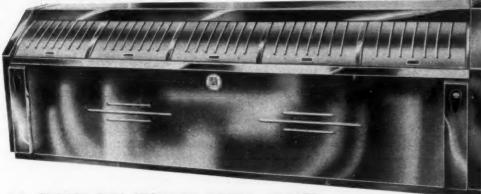
DRY STORAGE BOTTLE COOLER WITH UTILITY HOUSING

Designed to utilize "lost space" previously found over compressor. Perfectly placed for sandwich counter—mixing compartment—glass storage. 6 foot model illustrated. Also available in 4'—8' & 10' sizes. Features "finger-tip controlled" slide away doors. Another summer is coming, the season of demand for quality commercial refrigeration equipment will soon be in full swing. Give your business a COOLER future by preparing now to supply this demand with time tested—test proven La Crosse Equipment.

"Internationally accepted and called for by buyers demanding the utmost in modern design, quality materials and skilled workmanship in their refrigeration equipment."

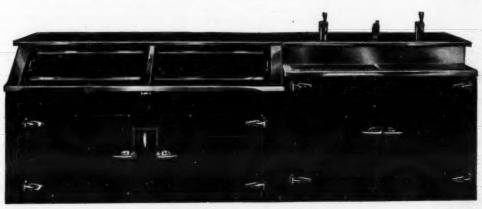
LA CROSSE IS THE LINE-FOR A COOLER '49

- Years of exclusive commercial refrigeration manufacture plus, skilled, guaranteed workmanship assures performance satisfaction of each model.
- Older, standby items are continually redesigned for greater efficiency. These items are proof positive of lasting quality and continued service and popularity of any item bearing the name La Crosse.
- New, up-to-date items have been added to La Crosse's Complete Line! Whenever there is a demand for a new item in refrigeration equipment—La Crosse research, engineering and design rolls up its sleeves to continue its enviable position as a field leader.



LA CROSSE DRY STORAGE BOTTLE COOLER

A real field leader—large capacity (48 cases)—two blower colls—curved, stainless steel, slide away doors—adjustable partitions—recessed base. Available in 4'-6'-8'-10' (illustrated).



THE CLUB SPECIAL

A complete, compact, all-in-one combination . . . 2 keg direct draw, two 1/2 barrel pre-cooler and dry storage bottle cooler. With or without bar top. All leading La Crosse features and workmanship have been successfully incorporated.



ICE CUBE MAKER

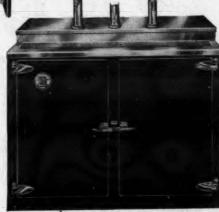
LA CROSSE

Production and storage capacity in one unit! This cube maker is one of the most popular items in the La Crosse line. Production capacity—21 quick release trays -16 cubes each Storage capacity—approximately 1,025 cubes plus 336 cubes in trays. Companion piece to Dry Storage Bottle Cooler.



GLASS CHILLER

Another first for La Crosse! Designed for use where present legislation prohibits wet glass refrigeration. 2 separate compartments (4 cu. ft. each) . . . each compartment will hold 200 heavy mugs . . . fits under standard 42" bar.



2 KEG DIRECT DRAW

Universally regarded as the standard of comparison for design, construction and performance. Available in black or stainless steel



Finest in storage equipment—serviceable, accessible and durable. Capacity: Three 1/2 barrels in lower compartment, approximately 15 cases in upper.



Designed for beauty, practicality, efficiency and economy. Can be used for bottle storage, food, kegs, etc.



SUPREME DRAINBOARDS

Time tested, ever popular, La Crosse standby—continually improved and perfected. Illustrated is model with extras— 18" towel bar, 8" spout water faucet, towel ring, 2 ft. stainless steel liquor trough.



PARAMOUNT DIRECT DRAW TAP BOX

with removable front

Eliminates coils—draw direct from walkin cooler. The Paramount, with removable front, is designed to fit under the bar without cutting.



YUKON

2806 LOSEY BLVD. SO. LA CROSSE, WISCONSIN

Export Representatives: Melvin Pine & Co. 80 Broad St., New York 4, New York Cable address: Eximport

Jordon Policy --

(Concluded from Page 1, Column 3)

"Should prices be decreased on any Jordon equipment between this date and June 30, 1949, dealers and distributors will receive full credit for any difference between the price paid and the reduced price for any stock on hand that has been shipped between this date and June 30, 1949," the announcement stated.

Explaining the action, a Jordon official noted that "a great many dealers and distributors of both commercial and domestic equipment, we believe, have been reluctant to carry any sizeable inventory or in fact to even maintain adequate stocks in fear of manufacturers' price cuts at almost any time. . . .'

He said the company believes that, as a result of price protection, "the commercial refrigeration distributor will feel a greater degree of safety in building up present inventories that will enable him to profitably exploit local markets. . . .

New York Dealer Group Changes Name To Denote Wider Scope

BUFFALO - Because appliance dealers from many sections of western New York expressed a desire to join, name of the newly-formed Erie County Appliance Dealers Association has been changed to the Niagara Frontier Appliance Dealer's Association.

The association plans to meet in the near future with representatives of the Buffalo Better Business Bureau to develop an advertising code.

H. A. Ritzie Joins Ebco To Manage Cooperative Advertising Department

COLUMBUS, Ohio-A. R. Benua, president of the Ebco Mfg. Co., has announced the appointment of Harold

Harold A. Ritzie

tising department, effective March 1. Ritzie comes to Ebco from the C. R. Markham Advertising Agency, Chicago, where he

A. Ritzie as man-

ager of the new

cooperative adver-

production manager for the past two years. Prior to his affiliation with the

Markham Agency, he was copywriter and assistant sales promotional manager for Allied Radio Corp., Chicago.

During World War II, Ritzie served four years as a field artillery communications officer, with 34 months of overseas duty.

According to Benua, "Ritzie's ap-

pointment marks the beginning of Ebco's new cooperative advertising program, which is intended to increase the quantity, the quality, and the effectiveness of sales promotion on the distributor and dealer level."

Under the cooperative program, a certain allotment for each new Oasis cooler shipped by Ebco to a distributor builds up a definite amount of credit in the company's cooperative advertising fund.

The distributor may use this credit for several specific types of advertis-

Employment --

(Concluded from Page 1, Column 5) and laundry equipment will go on a one-shift basis, but refrigerator production will continue on two shifts.

General Electric Co. released figures indicating that there had been a relatively small percentage reduction in employment from its overall peak, but did not indicate in what departments reductions were made.

Kelvinator made a statement saying that "Kelvinator field and factory inventories are still considerably less than at a comparable period in 1941 and the company's present plans contemplate no cutback in production at the present time."

A Philco Corp. spokesman said that the company "is planning no changes in its refrigerator production schedule at this time."

In his letter to President Truman, UEW's Fitzgerald called on the chief executive to request Congress for emergency grants-in-aid to states for public works to fill employment gaps as they develop; expanded coverage and benefits under a Federal unemployment compensation system; and enactment of the President's "fair deal" legislative program.

Feb. Vacuum Cleaner Sales Up from Jan., Below Feb. '48

CLEVELAND - February factory sales of standard size household vacuum cleaners were 5.5% above January and 22.5% below February of last year, C. G. Frantz, secretarytreasurer of the Vacuum Cleaner Manufacturers Association, has an-

Utility Advises Room Coolers 3/4 Hp. or Up Be Installed for Single Phase, 220 Volts

Houston Lighting & Power Co. Houston, Tex. Editor:

Referring to the article appearing in the Feb. 28 issue of AIR CONDI-TIONING & REFRIGERATION NEWS, there has been a misquotation in the statement, "Houston Lighting & Power Co. wants all room units of 34-ton capacity and up to be powered off three-phase, 220-volt lines, not 115, according to Blum."

The statement was that the Houston Lighting & Power Co. is recommending that all room air conditioning units of %-ton and larger be designed for installation and operation for single phase, 220-volt, service and not 115 volt single phase

I am passing this information on to you for any correction deemed necessary. We are also attaching copy of our letter as forwarded to electrical distributors and dealers throughout our service area.

> C. J. BLUM, superintendent sales promotion & research

TO ALL DISTRIBUTORS AND DEALERS OF WINDOW-TYPE AIR CONDITIONING EQUIPMENT (ROOM COOLERS)

"A large number of the 34-ton room coolers installed in this area over the past few years and connected for 115 volts have not operated satisfactorily, and numerous complaints have been received by the company from users and from their neighbors. Units of this size are usually too large for 115-volt connection, and good electrical practice as well as the service regulations of the Houston Lighting & Power Co. have long provided that units of this size and larger be connected for operation at 230 volts.

"The wiring circuits in most homes are too light to accommodate units of ¾ ton or larger capacity. Separate 230-volt circuits are needed for these units. The attempt to use such equipment on the same circuits with floor lamps, toasters, and other appliances has resulted in the poor performance of all, overheating of equipment or wiring, or the blowing of fuses.

"Furthermore, electric motors when starting usually require from three to six times normal running current, so that units of this size starting, or attempting to start, may, if supplied at 115 volts, flicker the lights, fail to come up to speed, blow fuses, or trip the circuit breaker. The net result in the customer's service and that of his neighbors is adversely affected, equipment has not given satisfaction, and the goodwill of dealer and company has been jeopardized.

"The manufacturers of room coolers now have generally available units of %-ton capacity or larger designed for connection to 230 volts, and the Houston Lighting & Power Co. finds it urgent and necessary to notify all dealers and distributors that except as outlined below, all room cooling equipment of %-ton capacity and over placed in operation on its lines must be connected for 230 volts.

"The company will not enlarge its services, either service drops or transformers, or in any way alter its facilities to rectify any low voltage condition on a customer's premises where this low voltage condition is the result of attempting to operate such equipment on 115 volts.

"Where 230 volts is not available, as in the company's downtown underground network area (where the service voltage is 120/208 volts), room coolers must be supplied for 208-volt operation. This may be accomplished by the use of 208-volt motors, or through the use of drytype 208/230 volt auto-transformers. Dry-type transformers are also available which permit 115-volt units to be operated on 230 or 208-volt circuits as well.

"Where the customer's home or store is old or quite small it may presently be supplied with 115-volt, two-wire service. Where such premises are served overhead from its general overhead distribution system, the Houston Lighting & Power Co., will, upon request, extend without charge a third wire service drop to the customer's premises for rendering 115/230 volt three-wire single phase service. The customer's electrician will, of course, make the necessary wiring additions to customer's interior wiring and service

"This problem relating to room coolers is not confined to the system of the Houston Lighting & Power Co., but is recognized by the various power companies, and the manufacturers nationally. The requirement that units of %-ton or larger be connected for 230 volts has been endorsed by the joint committee of the Edison Electric Institute, the National Electrical Manufacturers Association, and Air Conditioning and Refrigeration Manufacturers Association, all of whom recognize its importance.

"We will be glad to discuss this matter with any dealer or distributor who may have any question to ask or who may need further suggestions in this connection."

C. J. BLUM

Detroit ASRE To Hear Talk On Industrial Refrigeration

DETROIT-"Industrial Refrigeration" will be discussed by R. U. Berry of General Electric Co.'s air conditioning department, Bloomfield, N. J., before the Detroit section, American Society of Refrigerating Engineers, Monday evening, April 4, at 8 o'clock at the Rackham bldg.

Emerson Tire Gets New Quarters

MIAMI, Fla. - Emerson Tire & Appliance Store has occupied new quarters at 601 N. E. First Ave.





888888 BBBBBB

NEWA To Hear Speeches, Panel Discussions At 41st Annual Convention In Cincinnnati

NEW YORK CITY-Addresses by leading industry executives and the holding of four panel discussion sessions will be featured in the 41st annual convention program of the National Electrical Wholesalers Association, scheduled for the Netherland Plaza, Cincinnati, the first week in May, according to managing director Charles G. Pyle.

The convention sessions will be divided into meetings of the Appliance Division on May 2 and 3 and of the Apparatus and Supply Division on May 5 and 6, with the general meeting to be held on Wednesday, May 4.

More than 100 manufacturers' conference booths, an innovation this year, will be in use throughout the week at specified hours which do not conflict with convention sessions,

Mayor Albert D. Cash will deliver an address of welcome at the general meeting. Guest speakers will be Lowell B. Mason, Federal Trade Commissioner; and Tom Collins, publicity director, City National Bank and Trust Co., Kansas City, Mo., who will talk on "This Promising World."

Also scheduled is a presentation of the James H. McGraw Award to a member of the association for outstanding service to the electrical wholesaling industry. President E. B. Ingraham, Pyle, and Kendall B. De-Bevoise, N.E.W.A. counsel, will also address the May 4 meeting.

For the first time, the association will award certificates of honorary life membership to approximately 25 former members who are now retired. They have been invited to be present at the general convention session to receive this recognition of their years of service to the association and the industry.

The Appliance Division meetings will feature an address by Ross. D. Siragusa, president, Admiral Corp.

W. A. Blees, general sales manager, Crosley Div., Avco Mfg. Corp., will be a guest speaker on May 3. M. F. Cotes, executive vice president (Duo-Therm Div., Motor Wheel Corp., will talk on "Appliance Merchandising in 1949."

The subject of servicing television receivers will be presented by E. Anthony, chairman, subcommittee on television installation and maintenance of the service and repair parts committee.

Chairmen of Appliance Division Committees will constitute each of two panels on the morning and afternoon of May 3 and the discussions, which will include questions from the floor, will be led by moderator W. G. Peirce, Jr., vice president and chairman of the Appliance Division.

The morning panel session will include chairmen of the legislative, major appliances, small appliances, and radio, television, and tubes committees. The second panel session will represent rural markets, sales promotion and sales training, store management and store arrangement, and service and repair parts committees.

In addition, during the Appliance Division meetings, there will be an exhibit of essential facilities and equipment for the installation, maintenance, and repair of television re-

Apparatus and Supply Division meetings will hear guest speaker E. E. Potter, vice president, General Electric Co.; J. J. Kaske, chairman, warehousing committee, who will give a special report on modern methods of inventory control, and Carl Christine, secretary-manager, St. Louis Electrical Board of Trade, whose

PRIZE PACKAGE USAIRCE air cooled Refrigerated WINDOW ROOM COOLER Write for Better deale

UNITED STATES AIR CONDITIONING CORPORATION Como Ave. S.E. at 33rd • Minneapolis 14, Minnesot BETTER DEALER PROFITS WITH BETTER VALUES

demonstration-talk on adequate wiring is titled "I Can't Afford It-Can

D. M. Salsbury, vice president and chairman of the Apparatus and Supply Division, will serve as moderator at the panel sessions on May 5 and

On the first day the panel will be composed of chairmen of the fan and ventilating, lamp, residential lighting, conduit, conduit fittings and boxes, and industrial electronics com-

The concluding panel will represent the apparatus and control, wires and cable and armored conductor, wiring devices, outside construction materials, and industrial and commercial lighting committees.

Elections of the president and other officers will be announced following the luncheon meeting of the new board of governors on May 4. A cocktail party for members and guests is scheduled the same day.

Should Teamster's Union Bargain for Appliance Servicemen In Duluth?

DULUTH, Minn.—Appliance servicemen will vote with shipping clerks, warehousemen, finishers, truck drivers, and maintenance men employed by furniture firms in Duluth to determine whether or not they desire to authorize the Teamsters, Chauffers, Warehousemen, and Helpers Local 346 to make a union-shop agreement with their employers, in an election ordered held within 30 days of March 9 by the National Labor Relations Board.

The election was authorized by NLRB members Reynolds and Murdock. Grey, in dissenting, disagreed with the majority that a unit in a union authorization election may be comprised of employes of more than a single, independent employer, and would direct separate elections among employes of each employer.

The case is listed with the National Labor Relations Board as "Furniture Firms of Duluth (18-UA-108).'

Porcelain Enamel as Selling W. Michigan ASRE, RSES Tool Is P.E.I. Parley Theme

WASHINGTON, D. C .- The third annual sales management conference of the Porcelain Enamel Institute will be held June 24 at the Carter hotel, Cleveland, Ohio, the Institute has

Theme of the morning program of the one-day conference will be "how

The afternoon session will be devoted to "how to use porcelain enamel as a selling tool."

Audrey Hummel Dies

PARKVILLE, Mo.-Audrey Hummel, 53, Plant 2 superintendent for Koch Refrigerators, died suddenly at his home here March 8. Death was attributed to a heart attack.

Hummel had been associated with Koch for more than 25 years, for many years acting as purchasing

When Koch bought its No. 2 plant, Hummel was appointed superintendent.

Groups Plan To Discuss Field Problems Together

GRAND RAPIDS, Mich. - The western Michigan section of the American Society of Refrigerating Engineers will be host to the Grand Valley chapter of the Refrigeration Service Engineers Society at the Hotel Rowe here on the evening of April 13, it was announced recently by the former group.

This meeting will be an open forum and roundtable discussion of field problems by the two groups, it was

The members of the ASRE who are scheduled to participate on the roundtable panel are H. K. Johnson of the Bastian-Blessing Co.; W. G. Winkler of Brunswick-Balke-Collender Co.; H. F. Powell of Gibson Refrigerator Co.; Earl Hubacker of Norge Div., Borg-Warner Corp.; C. I. Bloomquist of Kold-Hold Mfg. Co.; O. S. McGuffey of Truformd Tube; and P. O. Domke of Mueller Brass

Why not Profit from Experiences of others...



"Frigidaire quality and perfect fituusure good operating equipment-that's why I use genuine Frigidaire parts," says W. E. Scott, of Scott Refrigeration Co., 1656 Pine St., San Francisco, Calif.



"Customer confidence is mighty important to us, and we keep it by using genuine, precision-made Frigidaire parts," says L. E. Geo. Leatherwood, of Leatherwood Bros. Hardware, Bonham, Texas.



"It's good business to use Frigidaire parts. They give dependable performance, are warranted for a full year," says T. J. Reedy, of North Town Refrigeration Corp., 4711 N. Lincoln Ave., Chicago, Ill.

Frigidaire Service Parts mean Good Business For You!



FRIGIDAIRE Parts and Accessories

FRIGIDAIRE REFRIGERATION OIL

Finest oil money can buy-

Free of all air and moisture

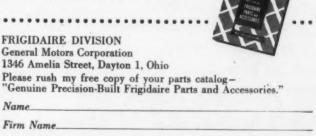
There's extra satisfaction for your customers in the extracare that goes into the processing of Frigidaire Refrigeration Oil. For you can be absolutely sure, when you use this fine oil, that compressor and refrigerating system are getting the best possible protection.

Filtered 28 times to remove the slightest traces of dirt and gum-forming substance, Frigidaire Refrigeration Oil is carefully processed to remove all air and rust-forming moisture. Inspected and tested again and again to make sure it meets Frigidaire's high standards, it comes to you sealed in spotlessly clean, air-tight cans.

Frigidaire Refrigeration Oil is available in two convenient sizes, I gallon and 5 gallons, in viscosities suitable for use with Freon 12, sulphuric dioxide, or methyl chloride re-

FREE! Frigidaire Parts Catalog. For full information about all Frigidaire service parts, write for your free Frigidaire "Parts" Catalog today.

FRIGIDAIRE DIVISION



Please rush my free copy of your parts catalog-"Genuine Precision-Built Frigidaire Parts and Accessories." Firm Name Address.

Lead-Off' Duct Uses Extra Exhaust Air To Cool System's Evaporative Condenser

Layout Ups Exhaust Capacity of Winter System 400%

NEW YORK CITY-Faced with the problem of having to exhaust 6,000 cu. ft. of air per minute from building with air conditioning equipment designed to exhaust only 1,200 c.f.m., engineers of Kooleraire Conditioning Co., Inc. here solved it by installing an extra duct from the return air section of the conditioner to the evaporative condenser.

E. V. Eichler of Kooleraire explained that his firm installed the conditioner, along with an evaporative condenser (both made by U. S. Air Conditioning Co.), a Servel condensing unit, and a water chiller, in the new five-story Bachrach building at 54 E. 52nd St. here last summer. Two 6,000 c.f.m. Janitrol gas heaters were included within the duct in-

"During the summer months," Eichler said, "conditions were such that only 1,200 cu. ft. of fresh air was required to satisfy the occupants. But during the winter months this amount of fresh air was no longer adequate and it became necessary to use the air conditioner's blower capacity to introduce 100% fresh air.

"In so doing a means of exhausting this air definitely had to be contended with.

"The physical aspects of the building and its location made it impossible to install separate exhaust fans on any of the five floors, nor was it

metal through these five floors for the purpose of exhausting approximately 5,000 c.f.m."

The engineers then decided on running the extra duct from the return air section of the conditioner to the evaporative condenser, which had been winterized, Eichler said.

"An electrical hook-up was installed that would automatically set the blower of the evaporative condenser in operation as soon as the blower of the air conditioner was set in operation," he narrated.

"A by-pass damper was installed in the return air section of the conditioner making it impossible for the air coming back from all five floors to enter the return air chamber.

"Instead this air was drawn into the new duct which was attached to the evaporative condenser and exhausted out."

This is how the system then operated, he asserted. The air conditioner blower with a capacity for 6,000 c.f.m. was pulling this amount of air from the outside and sending it up through the supply ducts through five stories of the building.

The return air duct, which was directly in contact with the blower section of the evaporative condenser -having a capacity of 5,000 c.f.m. was exhausting the necessary amount of air from all floors and giving the

Walk-In Increases Druggist's Orders



Besides beer, milk, and other beverages, the Hatchett Drugstore stores biologicals in this 10 x 6-ft. walk-in.

Special Window In Rear of Store Allows Passersby To See Large Beer Storage Room

DENVER-Installation of a 10 by 6-ft. walk-in refrigerator in the rear of the Hatchett Drugstore here at 701 Grant St., has led to beer sales amounting to 75 to 80 orders per day, according to W. A. Hatchett,

The huge refrigerator, is set up in a large storeroom area at the rear

CRAMPTON MANUFACTURING COMPANY

modate 100 cases of beer, according to Hatchett.

He installed the big box at a cost of \$1,400, after finding that even the lowest cost, reach-in refrigerator of similar capacity would amount to almost the same sum.

"The big refrigerator has paid us dividends in many ways," Hatchett said. "First, there is one 35° F. zone in which we have installed special shelving for biologicals, such as penicillin, toxins, viruses, etc. In addition to the hundred cases of beer, the box will hold several cases of mixers, soft drinks, plenty of milk to service the soda fountain, etc."

A special window is located at the right-rear of the store through which passing customers may see the refrigerator. With chromium hardware, and glistening white exterior, the refrigerator reminds hundreds of dwellers in nearby apartment and rooming houses, that the Hatchett Drugstore can fill their beer needs at any time.

Operating costs for the unit, which is the largest installed in any Denver drugstore, have been surprisingly moderate, according to Hatchett, amounting to approximately \$15 per month, even during the warmest period of the year.

"Installation of the box is actually the first time we have ever had sufficient refrigerated space to take care of the many items which need it," the Denver druggist said.

Mabley Is Vice President Of Mechanical Heat & Cold

DETROIT-T. Hollister Mabley has been appointed vice president and general manager of Mechanical Heat & Cold, Inc., local engineering contractor for heating, refrigeration, and air conditioning equipment, according to a recent announcement by H. A. Shuler, president.

In his new capacity, Mabley will supervise Temp-Matic Wholesalers, the firm's heating distributing organization, and will also serve as treasurer of the company.

After receiving his degree from the University of Michigan, Mabley was employed by the steam turbine department of General Electric Co. at Schenectady, N. Y., and later joined the Detroit distributor of G Z refrigeration products. He became associated with Mechanical Heat & Cold in 1936, serving as chief engineer and four years later became secretary of the firm and a director.

Mabley has been president of the Indoor Climate Institute, The Industrial Ventilation Society, and a member of the board of the American Society of Heating & Ventilating Engineers, Michigan Chapter. The author of numerous technical articles, he also authored a book, "Twenty-Five Typical Air Conditioning Systems.'

E. J. Mueller Heads Puro Branch

NEW YORK CITY-Puro Filter Corp. of America, water cooler and filter manufacturer, has announced the appointment of Erwin J. Mueller as manager of its branch office at 613 Del Monte Way, St. Louis, Mo.

Air Cooling Engineering Goes Into Production on 'Polar Breez' Conditioner

MORTON GROVE, Ill.—The Air-Cooling Engineering Co. has announced that it is going into immediate production on its new "Polar Breez Air Kooler."

This evaporative cooling unit supplies 100% fresh outside air to the room, cools the air 10 to 15° below outside temperature, then filters and double washes the air free from dust or pollen. The air is then purified by chemical process removing bacteria and algae.

Polar Breez is sold in complete "packaged units" in various sizes for all types and sizes of business buildings and stores.

The new units will provide both temperature and humidity control. They will have a range from 1,850 c.f.m. to 25,000 c.f.m and will be equipped with new glass fiber filter cooling pads which do not need servicing or replacement.

Units are complete with weatherproof metal housing, multi-blade pressure type blower, V-belt drives, and directional flow grille which controls air flow in both vertical and horizontal planes.

Each unit has a standard motor and a complete "Roto-Atomizer" (Pat. applied for) which will speed up the cooling and washing action of the air, according to the manufacturer.

K. E. Whitman, president of Air-Cooling Engineering, purchased the sales rights, engineering data, dies, and patterns, etc., of the Hall Mfg. Co. of Cedar Rapids, Iowa, in 1942 when the plant was sold.

At that time the Hall Co. manufactured and sold the "Hall Kumfort Kooler" in every section of the country and also in Canada, Mexico, and 14 foreign countries. The new Polar Breez Air Kooler is the same unit, modernized and greatly improved for the '49 market, Whitman said.

Booklet Covers Design Of Meat Carcass Coolers

NEW YORK CITY-Details on the design, construction, and operation of carcass coolers for meat packing plants are comprehensively covered in the latest pamphlet of the "Application Data" series issued bi-monthly by American Society of Refrigerating Engineers.

Entitled "Meat Packing Plant Refrigeration, Part 1, Carcass Coolers," and designated "AD 45," the 10-page pamphlet is divided into four major

"Beef Carcass Chilling Coolers," by J. S. Bartley, Rath Packaging Co.; "Beef Carcass Holding Coolers," by K. E. Wolcott, Wilson & Co.: "Hog Carcass Chilling Coolers," by J. P. McShane, Swift & Co.; and "Chilling Coolers for Lambs and Calves," also by McShane. McShane is also chairman of the joint ASRE-American Meat Institute Committee which prepared this "AD" section.

"AD 45" is illustrated with drawings and sketches showing various type coolers and circulating systems. Copies may be obtained from ASRE headquarters, 40 W. 40th St., New York, at 50 cents each.







GRAND RAPIDS 4, MICHIGAN

Heating Group Lists Convention Speakers

BLOOMFIELD, N. J .- Four outstanding figures in business and financial circles will address the Plumbing, Heating, Refrigeration, and Air Conditioning Industry group of the National Association of Credit Men during NAEM's national convention in Atlantic City May 15-19, according to C. G. Klock, program chairman and manager of credits and collections for the G-E air conditioning department.

Group sessions will be held May 17. M. F. Rush, district manager of the American Credit Indemnity Co., will speak on "Credit Insurance," and D. J. Dickens, vice president of Lawrence Warehouse Co., on "Field Warehousing," at the morning ses-

Addressing the group at the afternoon session will be A. Sworn Goldman, head of the Marketing and Research Department of Architectural Forum magazine, who will speak on "Indicators in the Construction Industry for the Credit Manager to Watch in '49," and A. B. Crummy, attorney, whose subject will be "A Practical Approach to Bankruptcy Problems for the Credit

Textile Plant Cooling Bill To Have New Hearing Soon

COLUMBIA, S. C .- The so-called Long air conditioning bill, which many legislators expected to come up for a vote March 17, was postponed and another hearing set on the

Representative John D. Long, of Union, author of the bill, asked that in fairness to all parties another hearing be held.

The hearing was set for April 6 with the House Labor, Commerce, and Industry Committee, to which the bill was recommitted, to report

the bill out by April 12 at noon.

As previously reported, the Long bill would require all textile plants in the state to install air condition-

"To do so," an industry spokesman declared, "would cost \$40,000,000 and be the beginning of the end of the textile industry."

Building Contract Awarded By Southern Distributor

CHARLOTTE, N. C. - Southern Radio Corp., distributor of Carrier room air conditioners and food freezers, and other appliances in the two Carolinas, has awarded a contract to the J. A. Jones Construction Co. for construction of a two-story headquarters building here representing a total investment of more than \$260,000.

James P. McMillan, president of the corporation, says the building will be erected on a two-acre site in the 1600 block of West Morehead St. Work on the project is scheduled to get under way at once.

McMillan said that he anticipates that the building will be completed and ready for occupancy in the

Louisiana Dealership Changes Name as Lee Becomes Partner

ALEXANDRIA, La. - Coleman-Watson Co., selling air conditioning, refrigerators, and freezers, 1717 Jackson St., has announced the association of Hary A. Lee with the firm as a co-owner.

Henceforth the firm will be known as Coleman, Watson, and Lee, Inc. Owners are Lee, George C. Coleman, and Wade E. Watson.



GET

THE

FACTS

Credit Men's Plumbing, June 1 Deadline Set for Installation of Water Conservation Devices on Units In Rochester, N.Y.

ROCHESTER, N. Y .- Owners of air conditioning systems here must install water conservation devices by June 1, city water superintendent Lewis B. Smith, announced recently.

Last summer's period of tolerance, granted under a city ordinance adopted in May, will not be repeated,

An amendment recently adopted by the City Council tightens provisions of the ordinance in addition to fixing the June 1 date of compliance, he pointed out.

Under the amendment, air conditioning units capable of giving 5 tons or less of refrigeration, which are not required to have water condevice limiting the amount of water

These devices, Smith said, are designed to prevent wanton waste of water and will not lessen the efficiency of the conditioning system. Under the original ordinance, units of 5 tons and over only were subject to its provisions.

There are about 150 air conditioning systems in use in Rochester, Smith said, and "a big percentage of them" already have installed the water conservation devices. The Palace theater is among buildings now installing a cooling tower such as

servation devices, must be provided is used by larger air conditioners for with an automatic water-regulating water conservation, Smith further water conservation, Smith further stated.

The Eastman Kodak Co. here, which has its own private water supply, still finds it economical to use a conservation system, Smith said.

The amendment also sets up a new system of fees to be paid the city for inspection on installation of air conditioning systems. There is a \$5 flat charge plus 10 cents per ton of refrigeration. Thus, a 100-ton unit would require a city inspection fee

The original ordinance was adopted last May 25 and made effective June 14, 1948. Because of the difficulty of

installing and obtaining the devices and other structures necessary, temporary postponements were granted, subject to the condition that the city could shut off the water in case of emergency. These temporary permits now will expire next June 1.

Braden Named Sales Mgr. For Fla. Carrier Distributor

ST. PETERSBURG, Fla. - Otto Krauss, Jr., general manager of the Krauss heating and ventilating firm here, has announced the appointment of O. S. Braden, Jr. as sales man-

Braden has had many years experience in heating, refrigeration, and air conditioning, Krauss said. The Krauss firm is Florida west coast distributor for Carrier air condition-



NEWEST OPPORTUNITY IN THE APPLI-ANCE BUSINESS. Fedders has made air conditioning as easy for you to sell as any other major home appliance. Easy to install...completely selfcontained...just plug in ordinary electrical outlet ... no water connections... no ducts... no building alterations.

IT'S A PACKAGE UNIT, A PACKAGE SALE, AND A PACKAGE INSTALLATION. No tradeins to worry about. Every sale means full profits.

Hop aboard for the opportunity to sell this vast potential market...all homes, professional and business offices, hotels, restaurants, institutions,...for wherever people work or relax there is need for the pleasure and comfort of air conditioning.

Go prospectin' for REAL profit in new, untouched diggin's ... sell Fedders Room Air Conditioners now!



Advice by an Authority on the Current Market for Used Models

By Telson Fineman, The Electric Center, Chicago

This year "trade-ins" will be a big factor in selling household refrigerators. Proper evaluation of the traded-in models will mean the difference between profit and loss on many sales that the dealer makes in 1949.

To assist dealers in arriving at a proper evaluation of used refrigerators, Air Conditioning & Refrigeration News will publish from time-to-time a discussion of used refrigerator values, written by Telson Fineman, one of the proprietors of The Electric Center, Chicago, one of the most active reconditioning and used refrigerator wholesale firms in the country.

These articles will describe the "actual" values of various makes and models of used refrigerators, how these values fluctuate with market conditions, and the precautions dealers must take in handling trade-ins. These articles are not a substitute for a good handbook of used refrigerator values-Fineman recommends strongly that all dealers have such a book-but rather they are a supplementary service that will enable dealers to get the most use out of such a handbook.

Although this is going to be a discussion of the evaluation of refrigerators for trade-in purposes, I would like to preface it with a few generalities.

First: I am assuming that the reader is a dealer who is interested in protecting as much of his profit as is possible. To do so, you must know as much about what NOT TO BUY as you do about what you sell.

Second: The maximum amount of profit can be made only if you resell your own trade-ins. In order to do this there are two things you must have; a service setup and expert cartage. The majority of the machines which you take in trade will be inoperative and at least should be checked by a qualified man; older machines have cartage problems which are peculiar to the type of machinery they use.

Third: Unless you know a lot about the old refrigerators in your territory or unless you can buy at a salvage price, take a good look at the boxes which are offered you. It is amazing how many 1941 machines turn out to be 1931's upon inspection; and how many "operating" units turn up with burned out motors.

Fourth: OWN AND USE an authoritative trade-in manual. The prices contained in these books may or may not be applicable to your situation, but the pictures will save many a trip to look at some old "clunker." Also, the prices shown are national average prices and you can usually allow a little more and help convince the customer that he drives a sharp

Any discussion of prices in this article is based on what we at Electric Center evaluate on the wholesale market and in no way has any bearing on what is given as an allowance in the sale of a new machine.

There are many machines in use today which have no value on the wholesale market. Some are obsolete and some are standard but, in either case, they are good machines to know. Under no condition would I advise selling these machines to a retail customer; they should be scrapped for parts or sold to someone for the salvage value.

Following is a list of "no-value" refrigerators as found in this area. Regardless of whether they are operating or not, they cannot be sold guaranteed.

Apex Atwater Kent Coldspot, 1930 to 1934 models Copeland (up to 1935) Electrolux, water-cooled Frigidaire, open units prior to 1934 and 1933-34 hermetics General Electric, 1927-29 models General Electric, inoperative belt-driven units General Electric, inoperative Monitor Top unit Gibson, inoperative bottommounted hermetics Gibson, top-mounted hermetics

Ice-O-Matic Kelvinator, brine evaporator jobs King Kold Majestic, sealed or open units Mayflower Mohawk Servel electric models Sparton, top-mounted hermetic Stewart-Warner, opposed compressor units Trukold Wayne Westinghouse, DWL models Westinghouse, inoperative top-mount-

Besides the machines which are in the above class, there are many that are in the \$5.00 to \$10.00 class (operating). The most popular in this area

ed units

Wurlitzer

Zerozone

are the following: Coldspot, any semi-hermetic Frigidaire, prior to 1935 General Electric, any Monitor Top unit

Kelvinator, prior to 1935 Norge, prior to 1935 Westinghouse, any top-mounted hermetic

Any allowance given for any of the machines mentioned in this article is in the nature of a discount because the dealer's recovery is almost nil.

(To Be Continued)

The Trade-In Problem Standardized Pricing, Reconditioning Costs Are Keys to Profitable Handling of Trade-Ins

By Herman Hantober

From Shanghai to Syracuse, the people of this worried world are hearing a lot of news about the "cold war" in Europe and Asia and nobody knows exactly what is going to happen. But, there's another "cold war" and a highly serious one right here on our own American doorstep and in our millions of kitchens. It calls for far more than wishful thinking and an attitude of "let George

I am referring to the trade-in refrigerator dilemma that's confronting refrigeration manufacturers and retailers from Coast to Coast, and the attendant trap dealers are likely to find themselves in during 1949, and the years to come, if they don't get aggressively busy without delay and do something about it!

12.5 Million Used Models

Let's be realistic about the situation as it exists today and face the cold facts without any punches pulled. Recent authentic figures divulge the fact the 12,500,000 refrigerators in American homes today are obsolete and worn out. The cost of putting these boxes into operable condition would be prohibitive at the present cost of labor and materials.

All of the old refrigerators coming in today, especially the "open type" models cost at least \$75 in order to do a good job of reconditioning. The units have to be taken out of the box and dehydrated, gas must be purged from the lines and unit, receiver must be washed and then baked to remove all traces of moisture, compressors and motors overhauled, controls replaced, hardware refurnished in some cases, the box sprayed and shelves retinned. The retail price, because of all this necessary work on these trade-ins, is pro-

After handling more than 1,200 of these trade-in refrigerators in our Philadelphia plant during 1948, we found that at least 50% of them had to be scrapped. About 11% of these were 1939, 1940, 1941, and 1942 hermetically sealed units and not a single one was in operating condition. The price of replacement units was far too costly, and so nothing can be done about them at present.

The final 39% were still running when we plugged them in, but they needed minor repairs such as work on the motor, control equipment or new drip trays and ice cube trays. The cost for such "minor" rebuilding averaged \$30 each! This still did not constitute a really satisfactory job.

Could we sell such patched-up refrigerators conscientiously to department stores? Definitely not. A great many stores were eager to buy them, but we felt that they were not satisfactory enough to carry any kind of performance guarantee.

Open Units Unprofitable

We came to a very logical and hard-headed conclusion. It was this: from our experience with these 1,200 trade-in refrigerators, all open type units regardless of their condition must be destroyed.

Now there's more to this than meets the eye, and it has to do with the refrigerator manufacturer's good name and sales potential. Suppose Mrs. Jones, who never owned a refrigerator before, goes into a store and buys a second hand refrigerator of any one of the leading brands. She

sees the name plate on it and expects satisfactory refrigeration service. If she doesn't get it, and the chances are that she won't, she'll forever damn that particular brand. Moreover, when and if the time comes that she is in the market for a new refrigerator, she will select some other make because she feels that she did not get satisfactory service from the rebuilt job.

Now the refrigerator reconditioner, no matter how he tries, cannot remedy this situation. It is foolish to try to put these antique models in first class running condition with labor and parts costing what they do today. All he can economically do, is to give it minor repairs and then "trust to luck" that it might

One department store that I happen to know about bought 100 of these "rebuilt" refrigerators in 1948 from a reconditioner. They took big newspaper space and announced a terrific sale. The first day they sold 50 of them. But when the service cost had been figured after the installations were made, they were glad to sell the balance of the boxes at a big loss to get out of their trouble!

Nationwide System of Reconditioning Plants

Is there a sound and workable solution to this problem which is confronting both the refrigerator manufacturer and the retailer alike? I am convinced that there is. Several large reconditioning plants, strategically located throughout the United States must be erected, to handle only hermetically sealed units. Also, there must be 15 warehouses where dealers can turn in trade-in refrierators that will be taken over by the fully equipped reconditioning plants.

There must be several large scrap yards, completely equipped with hydraulic presses, cranes, conveyers, etc., for junking these obsolete refrigerators and sending the metal residue to steel mills for scrap. There should also be an efficient and well organized truck pick-up service to take care of dealers in rural and outlying districts where they are remote from a warehouse or reconditioning plant.

Obviously, to handle such a program of the future, requires a refrigerator trade-in authority which sets up the standardized price at which an old box will be taken in. The National Refrigerator Market Report, known as the "Blue Book" was put into the hands of dealers originally back in 1938. It will be an invaluable aid to dealers in the United States during this hectic year

The Blue Book, let me add, gives complete illustrations, lists more than 2,200 makes and models of refrigerators, tells how to recondition the trade-ins and is really an invaluable aid to the dealer. Thus any dealer can tell at a glance what he should pay for any make or model refrigerator offered in part payment for a new unit. Moreover, the cold authority of the book serves to reduce the large values which consumers are wont to attach to their ancient boxes.

Dealers and utility companies in the Philadelphia area turn over all of their used boxes to us and receive the Blue Book price in return. For example, in one year as many as 2,200 trade-ins were sold to us by one large chain outfit. It was big business. We reconditioned and resold thousands of boxes in a year's

Dept. Stores Take 63%

Most of these reconditioned units, 63% in fact, were resold to department stores and dealers. About 15% went to foreign markets, 2% were rebuilt on a flat-rate basis for the dealers who had accepted them in trade and the remainder

The records show that 1948 was the year of proof. It was the "impossible" year. It showed us which way the wind was blowing. It tipped us off to what was coming in 1949. In other words, in 1949 trade-ins will be a major factor. If you, the dealer, don't want to take considerable losses, cash in on what our 1948 experience proved.

We know what can be done with these repairable refrigerators and how to make them marketable at a reasonable profit to the dealer. The dealer, on the other hand, is glad of the chance to unload these trade-ins and get rid of them at Blue Book prices as a convenient, profitable solution to a major problem

Pricing Will Become More Important In 1949

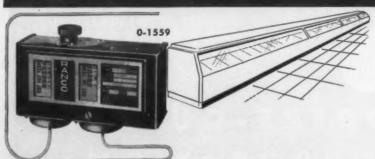
Actually it all comes down to "What's Mrs. Jones' old refrigerator worth on a trade-in deal?" That is where the Blue Book, published to assist in stabilizing the right price to be paid for a second hand refrigerator, enters the 1949 picture. It has been used successfully by dealers throughout the nation.

The refrigerator trade-in problem can and must be solved. Everyone of us in the business must contribute his share of smart thinking and planning. Somebody said recently, in referring to the resale of a refrig-

"The dealer sure has a hot potato on his hands. If he tries to handle worn out refrigerator, especially the 'open-type' models prior to '38, it's too old, and if he trades in a later model refrigerator, the '38 to 42 hemetically sealed types, beautifully streamlined but not working, it's too young!"

If refrigerator manufacturers are going to step up volume sales in '49, and if retailers are going to keep their rebuilt refrigerator departments on an even keel this year, then it behooves all of them to take the counsel of a refrigerator reconditioner who has learned the hard way-plan now for the present as well as the future, but never sell a second hand refrigerator that can be a "boomerang" to your reputation!





Most important in every replacement job is choosing the right control. There's a Ranco Replacement Control for every installation. The Ranco Type O-1559, for example, specifically designed for meat cases, walk-in coolers, florist boxes and similar fixtures, assures uniform fixture temperature and uniform relative humidity regardless of weather (summer or winter) or load conditions. Have your Ranco wholesaler show you the O-1559, and other Ranco Replacement Controls.



World's Largest Manufacturers of REFRIGERATION CONTROLS



E. D. GOODFELLOW CO., MEMPHIS 3, TENN.

PROMPT DELIVERY - SENSIBLY PRICED

Hatcher Heads Expanded Sales Promotion Program at Baker

SOUTH WINDHAM, Me. - Appointment of C. M. "Pete" Hatcher to the newly created post of adver-

tising and sales

promotional man-

ager was announced recently

by T. S. Pender-

gast, general man-

ager of Baker Re-

frigeration Corp.,

is entering into an



formerly the Baker Ice Machine Co. Pendergast explained that Baker

expanded manu-C. M. Hatcher facturing program and is planning several new products to be added to the Baker line in the near future.

Baker's board of directors has approved an increased advertising and sales promotion budget as well as a large engineering expansion program.

For the past year, Hatcher was associated with the Coca-Cola Bottling Works of Nashville, Tenn., as advertising manager. Prior to this, he was advertising and sales promotion manager of Universal Cooler Div. of International Detrola Corp.

Supermarket Institute Holds Prices on Booths

NEW YORK CITY-Full details of exhibit areas at the forthcoming Twelfth Annual Convention of the Supermarket Institute in Chicago, May 8 to 12, at the Hotel Stevens. have been released by Don Parsons, executive director of the Supermarket Institute, to national advertisers throughout the country.

In announcing details, Parsons pointed out that despite an extraordinary demand for spaces available, prices of booths remained the same as last year.

In a separate memorandum outlining some of the features of the convention which would help manufacturers, he revealed plans to maintain a message center at the convention, a convention newspaper, and a special club room for members of the Institute and their wives.

16-Week Course Covers Repair of Hermetic Units

MINNEAPOLIS-A 16-week training program dealing exclusively with the local repair of hermetically sealed refrigeration units has recently been added to the curriculum at Practical Trades Institute, Inc., 25 University Ave., S. E., Minneapolis 4.

Because of the highly technical nature of this repair work, Practical Trades Institute offers this training only to graduates of accredited refrigeration schools and to refrigeration servicemen with an equivalent background.



Patrons Push 'Buzzer' for Personal Meat Cutting Service

DENVER-An innovation in selfservice meat service which has won much appreciative comment at the "Sooper" Supermarket, 38th and Irving, here, is the installation of buzzers by which customers summon a butcher to order special cuts.

The buzzers are installed at two points along the 60-ft. self-serve meat cases, mounted directly in the center of case canopies. Twelve by six-inch yellow signs, with a black arrow painted on each pointing to the buzzer button, are lettered "For Special Cuts Of Meat-Press This Buzzer."

In smaller letters, the signs explain "A meat man will be here to serve you-or you are welcome to step into our cutting room, and we'll cut anything to your order. We want to serve you, our customers."

Use of the buzzer system has gone a long way toward doing away with the impersonality of pre-packaged fresh meat shopping, according to Robert Lowry, manager of the super-



Note buzzer in middle of self-serve case

"There are still many housewives who don't like the self-serve method," he pointed out, "and prefer to deal directly with the butcher, pointing

out the type of steak or chops they wish cut to suit their own requirements.

The buzzers are pressed anywhere

from 10 to 20 times per day, according to the management. One cutter from the crew on duty in a stainless steel cutting room at the rear of the store is assigned to answering.
Usually, the customer is invited

back into the department, where she can select desired meat from stock hung in a all-white walk-in refrigerator. Such specialized service helps to restore the personal link between store and customer, and many women have adopted the practice of coming direct to the cutting room.

Another advantage of the plan is the excellent impression made by the sanitary cutting room, according to Lowry. Women who are pleased by the stainless-steel and white enamel atmosphere invariably talk about the visit to their friends, and thus encourage self-service buying.

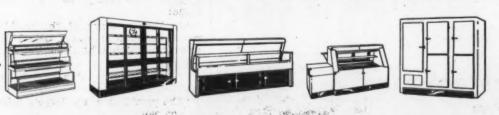
For this reason, all cutting machines, saws, and work surfaces are kept scoured clean at all times, and the entire self-serve meat operation is inspected at regular intervals.



the newest addition to THE LINE OF LEAST RESISTANCE

To meet consumer demands, KOCH continues to add new salable models. The new ZEROSTREAM Beverage Cooler is typical of fine to the line of least resistance. There are refrigerators and display cases KOCH equipment. It is the last word in cold, in convenience, of many sizes, and in many models...one or more to meet nearly every and in cleanliness at the bar. The Zerostream keeps bottled commercial need. Every one typifies KOCH functional design . . . a combination of beauty and practical features that provide faster, better brands... no slimy bottles to wipe. Doors slide up and out of service, dependable performance, and economy of operation. Into each is the way, meaning faster service, instant brand location. Now built the quality that has made KOCH the refrigerator "buy-word" since available in capacities of 18 or 30 cases, for either remote 1883. Get the facts and see why the KOCH line is the profit line for you

Send today for Details and Open Territories



More Reasons Why KOCH MEANS COLD CASH TO YOU

beer dry...ready to serve at temperatures even lower than 32°, if desired. No soaked off labels . . . no groping for

	or self-contained installations of the condensing u	nit.
	North Kansas City 16, Ma.	RN6
	Gentlemen: Please send full information on the KOCH line of refrigerators.	
	NameTitle	
	Address	_
e	Firm Name	_
	City Zone State	

The Trade-In Problem

Advice by an Authority on the Current Market for Used Models

By Telson Fineman, The Electric Center, Chicago

This year "trade-ins" will be a big factor in selling household refrigerators. Proper evaluation of the traded-in models will mean the difference between profit and loss on many sales that the dealer makes in 1949.

To assist dealers in arriving at a proper evaluation of used refrigerators, AIR CONDITIONING & REFRIGERATION NEWS will publish from time-to-time a discussion of used refrigerator values, written by Telson Fineman, one of the proprietors of The Electric Center, Chicago, one of the most active reconditioning and used refrigerator wholesale firms in the country.

These articles will describe the "actual" values of various makes and models of used refrigerators, how these values fluctuate with market conditions, and the precautions dealers must take in handling trade-ins. These articles are not a substitute for a good handbook of used refrigerator values—Fineman recommends strongly that all dealers have such a book—but rather they are a supplementary service that will enable dealers to get the most use out of such a handbook.

Although this is going to be a discussion of the evaluation of refrigerators for trade-in purposes, I would like to preface it with a few generalities.

First: I am assuming that the reader is a dealer who is interested in protecting as much of his profit as is possible. To do so, you must know as much about what NOT TO BUY as you do about what you sell.

Second: The maximum amount of profit can be made only if you resell your own trade-ins. In order to do this there are two things you must have; a service setup and expert cartage. The majority of the machines which you take in trade will be inoperative and at least should be checked by a qualified man; older machines have cartage problems which are peculiar to the type of machinery they use.

Third: Unless you know a lot about the old refrigerators in your territory or unless you can buy at a salvage price, take a good look at the boxes which are offered you. It is amazing how many 1941 machines turn out to be 1931's upon inspection; and how many "operating" units turn up with burned out motors.

Fourth: OWN AND USE an authoritative trade-in manual. The prices contained in these books may or may not be applicable to your situation, but the pictures will save many a trip to look at some old "clunker." Also, the prices shown are national average prices and you can usually allow a little more and help convince the customer that he drives a sharp bargain.

Any discussion of prices in this article is based on what we at Electric Center evaluate on the wholesale market and in no way has any bearing on what is given as an allowance in the sale of a new machine.

There are many machines in use today which have no value on the wholesale market. Some are obsolete and some are standard but, in either case, they are good machines to know. Under no condition would I advise selling these machines to a retail customer; they should be scrapped for parts or sold to someone for the salvage value.

Following is a list of "no-value" refrigerators as found in this area. Regardless of whether they are operating or not, they cannot be sold guaranteed.

Ice-O-Matic

Wurlitzer

Zerozone

Apex Atwater Kent Coldspot, 1930 to 1934 models Copeland (up to 1935) Dayton Electrolux, water-cooled Frigidaire, open units prior to 1934 and 1933-34 hermetics General Electric, 1927-29 models General Electric, inoperative belt-driven units General Electric, inoperative Monitor Top unit Gibson, inoperative bottommounted hermetics Gibson, top-mounted hermetics

Kelvinator, brine evaporator jobs
King Kold
Majestic, sealed or open units
Mayflower
Mohawk
Servel electric models
Sparton, top-mounted hermetic
Stewart-Warner, opposed compressor units
Trukold
Wayne
Westinghouse, DWL models
Westinghouse, inoperative top-mounted units

Besides the machines which are in the above class, there are many that are in the \$5.00 to \$10.00 class (operating). The most popular in this area are the following:

Coldspot, any semi-hermetic Frigidaire, prior to 1935 General Electric, any Monitor Top unit Kelvinator, prior to 1935 Norge, prior to 1935 Westinghouse, any top-mounted hermetic

Any allowance given for any of the machines mentioned in this article is in the nature of a discount because the dealer's recovery is almost nil.

(To Be Continued)

Standardized Pricing, Reconditioning Costs Are Keys to Profitable Handling of Trade-Ins

By Herman Hantober

From Shanghai to Syracuse, the people of this worried world are hearing a lot of news about the "cold war" in Europe and Asia and nobody knows exactly what is going to happen. But, there's another "cold war" and a highly serious one right here on our own American doorstep and in our millions of kitchens. It calls for far more than wishful thinking and an attitude of "let George do it."

I am referring to the trade-in refrigerator dilemma that's confronting refrigeration manufacturers and retailers from Coast to Coast, and the attendant trap dealers are likely to find themselves in during 1949, and the years to come, if they don't get aggressively busy without delay and do something about it!

12.5 Million Used Models

Let's be realistic about the situation as it exists today and face the cold facts without any punches pulled. Recent authentic figures divulge the fact the 12,500,000 refrigerators in American homes today are obsolete and worn out. The cost of putting these boxes into operable condition would be prohibitive at the present cost of labor and materials.

All of the old refrigerators coming in today, especially the "open type" models cost at least \$75 in order to do a good job of reconditioning. The units have to be taken out of the box and dehydrated, gas must be purged from the lines and unit, receiver must be washed and then baked to remove all traces of moisture, compressors and motors overhauled, controls replaced, hardware refurnished in some cases, the box sprayed and shelves retinned. The retail price, because of all this necessary work on these trade-ins, is prohibitive.

After handling more than 1,200 of these trade-in refrigerators in our Philadelphia plant during 1948, we found that at least 50% of them had to be scrapped. About 11% of these were 1939, 1940, 1941, and 1942 hermetically sealed units and not a single one was in operating condition. The price of replacement units was far too costly, and so nothing can be done about them at present.

The final 39% were still running when we plugged them in, but they needed minor repairs such as work on the motor, control equipment or new drip trays and ice cube trays. The cost for such "minor" rebuilding averaged \$30 each! This still did not constitute a really satisfactory job.

Could we sell such patched-up refrigerators conscientiously to department stores? Definitely not. A great many stores were eager to buy them, but we felt that they were not satisfactory enough to carry any kind of performance guarantee.

Open Units Unprofitable

We came to a very logical and hard-headed conclusion. It was this: from our experience with these 1,200 trade-in refrigerators, all open type units regardless of their condition must be destroyed.

Now there's more to this than meets the eye, and it has to do with the refrigerator manufacturer's good name and sales potential. Suppose Mrs. Jones, who never owned a refrigerator before, goes into a store and buys a second hand refrigerator of any one of the leading brands. She

sees the name plate on it and expects satisfactory refrigeration service. If she doesn't get it, and the chances are that she won't, she'll forever damn that particular brand. Moreover, when and if the time comes that she is in the market for a new refrigerator, she will select some other make because she feels that she did not get satisfactory service from the rebuilt job.

Now the refrigerator reconditioner, no matter how he tries, cannot remedy this situation. It is foolish to try to put these antique models in first class running condition with labor and parts costing what they do today. All he can economically do, is to give it minor repairs and then "trust to luck" that it might possibly work.

One department store that I happen to know about bought 100 of these "rebuilt" refrigerators in 1948 from a reconditioner. They took big newspaper space and announced a terrific sale. The first day they sold 50 of them. But when the service cost had been figured after the installations were made, they were glad to sell the balance of the boxes at a big loss to get out of their trouble!

Nationwide System of Reconditioning Plants

Is there a sound and workable solution to this problem which is confronting both the refrigerator manufacturer and the retailer alike? I am convinced that there is. Several large reconditioning plants, strategically located throughout the United States must be erected, to handle only hermetically sealed units. Also, there must be 15 warehouses where dealers can turn in trade-in refrierators that will be taken over by the fully equipped reconditioning plants.

There must be several large scrap yards, completely equipped with hydraulic presses, cranes, conveyers, etc., for junking these obsolete refrigerators and sending the metal residue to steel mills for scrap. There should also be an efficient and well organized truck pick-up service to take care of dealers in rural and outlying districts where they are remote from a warehouse or reconditioning plant.

Obviously, to handle such a program of the future, requires a refrigerator trade-in authority which sets up the standardized price at which an old box will be taken in. The National Refrigerator Market Report, known as the "Blue Book" was put into the hands of dealers originally back in 1938. It will be an invaluable aid to dealers in the United States during this hectic year of 1949.

The Blue Book, let me add, gives complete illustrations, lists more than 2,200 makes and models of refrigerators, tells how to recondition the trade-ins and is really an invaluable aid to the dealer. Thus any dealer can tell at a glance what he should pay for any make or model refrigerator offered in part payment for a new unit. Moreover, the cold

authority of the book serves to reduce the large values which consumers are wont to attach to their ancient boxes.

Dealers and utility companies in the Philadelphia area turn over all of their used boxes to us and receive the Blue Book price in return. For example, in one year as many as 2,200 trade-ins were sold to us by one large chain outfit. It was big business. We reconditioned and resold thousands of boxes in a year's time.

Dept. Stores Take 63%

Most of these reconditioned units, 63% in fact, were resold to department stores and dealers. About 15% went to foreign markets, 2% were rebuilt on a flat-rate basis for the dealers who had accepted them in trade and the remainder scrapped.

The records show that 1948 was the year of proof. It was the "impossible" year. It showed us which way the wind was blowing. It tipped us off to what was coming in 1949. In other words, in 1949 trade-ins will be a major factor. If you, the dealer, don't want to take considerable losses, cash in on what our 1948 experience proved.

We know what can be done with these repairable refrigerators and how to make them marketable at a reasonable profit to the dealer. The dealer, on the other hand, is glad of the chance to unload these trade-ins and get rid of them at Blue Book prices as a convenient, profitable solution to a major problem.

Pricing Will Become More Important In 1949

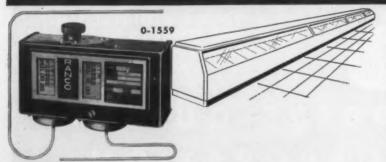
Actually it all comes down to "What's Mrs. Jones' old refrigerator worth on a trade-in deal?" That is where the Blue Book, published to assist in stabilizing the right price to be paid for a second hand refrigerator, enters the 1949 picture. It has been used successfully by dealers throughout the nation.

The refrigerator trade-in problem can and must be solved. Everyone of us in the business must contribute his share of smart thinking and planning. Somebody said recently, in referring to the resale of a refrigerator.

"The dealer sure has a hot potato on his hands. If he tries to handle a worn out refrigerator, especially the 'open-type' models prior to '38, it's too old, and if he trades in a later model refrigerator, the '38 to '42 hemetically sealed types, beautifully streamlined but not working, it's too young!"

If refrigerator manufacturers are going to step up volume sales in '49, and if retailers are going to keep their rebuilt refrigerator departments on an even keel this year, then it behooves all of them to take the counsel of a refrigerator reconditioner who has learned the hard way—plan now for the present as well as the future, but never sell a second hand refrigerator that can be a "boomerang" to your reputation!





Most important in every replacement job is choosing the right control. There's a Ranco Replacement Control for every installation. The Ranco Type O-1559, for example, specifically designed for meat cases, walk-in coolers, florist boxes and similar fixtures, assures uniform fixture temperature and uniform relative humidity regardless of weather (summer or winter) or load conditions. Have your Ranco wholesaler show you the O-1559, and other Ranco Replacement Controls.



World's Largest Manufacturers of REFRIGERATION CONTROLS

Here they are!



Model WC65

Good-Fellow
COOLING TOWERS

6.4 to 13.5 tons

Dealers - Contractors, HERE

is your TOWER for the

package air conditioning unit

Wire, write or phone for complete data and prices PROMPT DELIVERY - SENSIBLY PRICED

E. D. GOODFELLOW CO., MEMPHIS 3, TENN.

Hatcher Heads Expanded Sales Promotion Program at Baker

SOUTH WINDHAM, Me. - Appointment of C. M. "Pete" Hatcher to the newly created post of advertising and sales

promotional man-

ager was announced recently

by T. S. Pender-

gast, general man-

ager of Baker Re-

frigeration Corp.,



formerly the Baker Ice Machine Co. Pendergast ex-

plained that Baker is entering into an expanded manu-C. M. Hatcher facturing program and is planning several new products to be added to the Baker line in the

near future. Baker's board of directors has approved an increased advertising and sales promotion budget as well as a large engineering expansion program.

For the past year, Hatcher was associated with the Coca-Cola Bottling Works of Nashville, Tenn., as advertising manager. Prior to this, he was advertising and sales promotion manager of Universal Cooler Div. of International Detrola Corp.

Supermarket Institute **Holds Prices on Booths**

NEW YORK CITY-Full details of exhibit areas at the forthcoming Twelfth Annual Convention of the Supermarket Institute in Chicago, May 8 to 12, at the Hotel Stevens, have been released by Don Parsons, executive director of the Supermarket Institute, to national advertisers throughout the country.

In announcing details, Parsons pointed out that despite an extraordinary demand for spaces available, prices of booths remained the same as last year.

In a separate memorandum outlining some of the features of the convention which would help manufacturers, he revealed plans to maintain a message center at the convention, a convention newspaper, and a special club room for members of the Institute and their wives

16-Week Course Covers Repair of Hermetic Units

MINNEAPOLIS-A 16-week training program dealing exclusively with the local repair of hermetically sealed refrigeration units has recently been added to the curriculum at Practical Trades Institute, Inc., 25 University Ave., S. E., Minneapolis 4.

Because of the highly technical nature of this repair work, Practical Trades Institute offers this training only to graduates of accredited refrigeration schools and to refrigeration servicemen with an equivalent



Patrons Push 'Buzzer' for Personal Meat Cutting Service

DENVER-An innovation in selfservice meat service which has won much appreciative comment at the "Sooper" Supermarket, 38th and Irving, here, is the installation of buzzers by which customers summon a butcher to order special cuts.

The buzzers are installed at two points along the 60-ft. self-serve meat cases, mounted directly in the center of case canopies. Twelve by six-inch yellow signs, with a black arrow painted on each pointing to the buzzer button, are lettered "For Special Cuts Of Meat-Press This Buzzer."

In smaller letters, the signs explain "A meat man will be here to serve you-or you are welcome to step into our cutting room, and we'll cut anything to your order. We want to serve you, our customers."

Use of the buzzer system has gone a long way toward doing away with the impersonality of pre-packaged fresh meat shopping, according to Robert Lowry, manager of the supermarket.



Note buzzer in middle of self-serve case

"There are still many housewives who don't like the self-serve method," he pointed out, "and prefer to deal directly with the butcher, pointing out the type of steak or chops they wish cut to suit their own require-

The buzzers are pressed anywhere

cording to the management. One cutter from the crew on duty in a stainless steel cutting room at the rear of the store is assigned to answering.

Usually, the customer is invited back into the department, where she can select desired meat from stock hung in a all-white walk-in refrigerator. Such specialized service helps to restore the personal link between store and customer, and many women have adopted the practice of coming direct to the cutting room.

Another advantage of the plan is the excellent impression made by the sanitary cutting room, according to Lowry. Women who are pleased by the stainless-steel and white enamel atmosphere invariably talk about the visit to their friends, and thus encourage self-service buying.

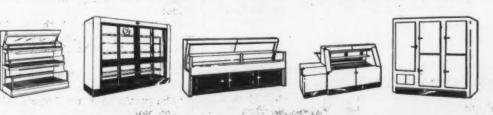
For this reason, all cutting machines, saws, and work surfaces are kept scoured clean at all times, and the entire self-serve meat operation is inspected at regular intervals.



the newest addition to THE LINE OF LEAST RESISTANCE

To meet consumer demands, KOCH continues to add new salable models. The new ZEROSTREAM Beverage Cooler is typical of fine to the line of least resistance. There are refrigerators and display cases KOCH equipment. It is the last word in cold, in convenience, of many sizes, and in many models...one or more to meet nearly every commercial need. Every one typifies KOCH functional design . . . a combination of beauty and practical features that provide faster, better service, dependable performance, and economy of operation. Into each is built the quality that has made KOCH the refrigerator "buy-word" since 1883. Get the facts and see why the KOCH line is the profit line for you.

Send today for Details and Open Territories



More Reasons Why KOCH MEANS COLD CASH TO YOU

and in cleanliness at the bar. The Zerostream keeps bottled beer dry...ready to serve at temperatures even lower than 32°, if desired. No soaked off labels . . . no groping for brands...no slimy bottles to wipe. Doors slide up and out of the way, meaning faster service, instant brand location. Now available in capacities of 18 or 30 cases, for either remote

or self-contain	ed installations of	the condensing	g unit.
KOCH Refrigerators North Kansas City	16, Mo.		RN6
Gentlemen: Please send full info	ormation on the KOCH lin	e of refrigerators.	
Name		Title	
Address			
Firm Name	4		
City	Zqne	State	8



(Concluded from Page 1, Column 1) housewives, but he also sells them refrigerators when the coldest blasts of plenty-below-zero winter hit the way-up-there Northlands.

He recently closed a sale for a Philco refrigerator when the thermometer's mercury was shivering around the 43 degrees-below-zero mark.

Bowing to the old theory that "the show must go on," this super-salesman succeeded in making delivery of this refrigerator the very same day, in spite of the fact that the motor of his truck froze up on its icy journey to the customer's home.

So help us, he finished the journey on foot, drawing a pack-sled (bearing the refrigerator) on foot.

This, we hope, is the selling-refrigerators-to-Eskimos story to end all such stories. Leave us hear no more of them.

The 'Corn' Is Green In England, Too

Chieftain Twin

Chieftain "4"

CHIEFTAIN

CONVENTIONAL

COMPRESSORS

An item in a recent issue of the British trade journal, Modern Refrigeration, indicates that American radio comedians have no corner on "corn."

England's Secretary of State for Foreign Affairs was asked in the House of Commons about the current production of refrigerators in the British and U. S. zones of Germany, and what proportion of these refrigerators were retained for the German home market. He replied that 2,021 electric refrigerators and 686 tons of refrigeration equipment were manufactured in the two German zones during a typical month. Exports, he said, were negligible.

After one member of the House demanded to know why the Germans, when they owe so much, should be allowed to retain even one refrigerator until the market in England has been satisfied, another member cracked:

"Are those pieces of mechanism necessary for the maintenance of the cold war?"

We seem to be in the mood for English stories this week, so here goes with three more:

"I say, Archie, old boy," snickered Reginald, folding his *London Times*, "we've jolly well outdone the Yankees this time."

"So?" muttered his fellow clubman, still perusing his newspaper. "How?"

"Haven't you read?" guffawed Reggie, "we've given one bloody country back to the Indians."

Two English gentlemen met in their club one evening for a "spot" or two.

"I say, old boy," chaffed Basil, "you shouldn't be so careless with your window shades. I could see you kissing the missus last night."

"What ho, Basil, that's a bloody good one," chortled Chauncey. "I wasn't home last night!"

Ambling idly down a busy London

thoroughfare, one of Scotland Yard's famed operators alerted quickly.

"I say, Leslie," whispered the detective to his partner. "That buxom lass who's shadowing us is really a good-looker. She's 20 paces behind us. Don't look now, but she's an eyefull."

Leslie's head swivelled swiftly.

"That she is, that she is!" he breathed. "But how in the name of St. George could you know that so gorgeous a creature was shadowing us? You haven't looked backward for a long time."

"Aha, good friend, 'twas elemental. By watching the expressions of pleasure and delight on the faces of the gentlemen walking toward us during the last half-mile of our jaunt, I decided that this lassie was not only a pulse-impulser but that she was tailing us with a measured equidistant pace."

They're Sore as Hell

An interesting new association named Ex-GI Small Businessmen, with headquarters at 35 W. Eighth St., New York City, is headed by Jay V. Smith, a Guadalcanal veteran.

Last year this J. V. Smith returned his war medals to President Truman "in protest against the government's hamstringing of people who want to help themselves."

M. Smith runs a restaurant in Greenwich, Conn. His new organization consists of ex-GI's who have gone into business for themselves.

The Ex-GI Small Businessmen organization feels strongly about what paternalistic-socialistic government is doing to them. We quote from a recent Ex-GI Small Businessmen Association release:

Chieftain Single

First Choice

FOR REPLACEMENT

Year in and year out, smooth, quiet, dependable Chieftain

Compressors have been first choice of refrigeration service men for replacement

installations. First choice of manufacturers, too, for assembly into their own equip-

ment and products. There are reasons . . . good reasons . . . for this unparalleled

acceptance throughout the industry. For, over the years, Chieftain has been first to

pioneer many important advances in compressor design and manufacture. Has led

the field in introducing A mass precision machining methods A forced feed

lubrication for reciprocating parts & automatic cylinder lubrication & triple in-

spection and rereful selective fitting of all parts. These are just a few of the many

outstanding Chieftain features designed to give you the maximum in long-life,

trouble-free performance at a minimum first cost. A few of the many good reasons,

too, for you to standardize in Chieftain for all your replacement installations.

wide range of applications. Complete, convenient jobber stocks maintained in

principal cities coast-to-coast to assure prompt, efficient delivery. See your local

jobber today . . . or write direct for the name of your nearest source of Chieftain

Single, twin, and four cylinder models available to meet the requirements of a

INSTALLATIONS!

"The core of the traditional American free enterprise system has been the opportunity to start your own business and climb the ladder of business opportunity by your own efforts.

"Thousands of ex-GIs, inspired by the victory they had just achieved for the American way of life, decided this was the opportune moment to roll up their sleeves and test their abilities under the American economy.

"These ex-heroes soon found themselves all tangled up in the red tape of bureaucracy.

"From the first day the enterprising ex-GI decides to start his own business he must start paying out for various permits, licenses, incorporation papers, and various special taxes—even before he makes his first sale.

"He also learns that under the present intricate American system there is no encouragement of those who seek to work their way up by their own efforts. In fact, the controlling forces of present-day America look askance at such old-fashioned notions as trying to build a business by working 14 hours a day, seven days a week.

"But . . . while the government drains his meager resources with taxes and assessments . . . it is quite generous to other GI's bent on more glamorous careers. There seems to be no dearth of funds for would-be artists roughing it in Paris or would-be thespians aspiring to be movie stars.

"While our government is generous in underwriting the perennial 'gimme' groups it turns a deaf ear to the problems of the self-reliant.

"Our new philosophy of government seems to be: tax the worker and give it to the bum."

These lads have something there.

One Billion Dollars

Quote and unquote:

"As we are talking in billions of dollars every day it may be of interest to know just how much a billion dollars is.

"If you started in business in the year I with a billion dollars and lost a thousand dollars a day, you would still have enough money left to keep going at the same rate for another 200 years."—The Clarkson Letter.

The Job Is URGENT

Industry and business must sell the youth of today on the advantages of a sales career if "we are to preserve our concept of a successful economy," according to Inwood Smith, refrigeration manager of Crosley Div., Avco Mfg. Corp.

"We have sat back," Smith declares, "and permitted the initiative and ambition of the average youth to deteriorate to the point where he prefers the security and ease of a factory or office position to the hard work and so-called 'uncertainty' involved in a selling career."

Mr. Smith chides today's youth for ignoring the fundamental precepts which first made America strong—ambition, initiative, and willingness for hard work.

"It was these characteristics which made us the outstanding mass-producing, mass-selling nation in the world today, Smith said.

Based on personal experiences, Smith lists independence, financial remuneration, advancement, job satisfaction, and environment as the principal advantages accruing from a selling career.

In this connection, he traced the development of selling in the electrical appliance industry during the past 20 years, and concludes that it represents "American industry and enterprise at its best—an industry that has grown strong through the most rigorous competition—through providing the American family and housewife with a healthier, easier, richer living."

Requiescat In Pacem

Originally written for the Investment Dealer's Digest by Raymond Trigger, this story has curiosity value:

"In 1923 a group of the world's most successful financiers met at the Edgewater Beach hotel in Chicago. Present were:

"The president of the largest independent steel company.

"The president of the largest utility company.

"The greatest wheat speculator. "The president of the New York Stock Exchange.

"A member of the President's cabi-

"The greatest 'bear' in Wall Street.
"The president of the Bank of In-

ternational Settlements.
"The head of the world's greatest

monopoly.

"Collectively these tycoons controlled more wealth than there was in the United States Treasury.

"Twenty-five years later let's see what had happened to these men.

"The president of the largest independent steel company—Charles Schwab—lived on borrowed money the last five years of his life and died broke.

"The greatest wheat speculator— Arthur Cutten—died abroad insolvent.

"The president of the New York Stock Exchange—Richard Whitney served a term in Sing Sing.

"The member of the President's cabinet—Albert Fall—was pardoned from prison so he could die at home

from prison so he could die at home.
"The greatest 'bear' in Wall Street

—Jess Livermore—committed suicide.

"The president of the Bank of International Settlements—Leon Frazer—committed suicide.

"The head of the world's greatest monopoly—Ivar Kreuger—committed suicide.

"All of these men had learned how to make money, but not how to save it or how to live."

From Our Mailbag

Menominee, Mich.

Editor:

Loyal readers of your stimulating 'Inside Dope' may like this fable: "There was a man who lived by

the side of the road and sold hot dogs.
"He was hard of hearing, so had

no radio.
"He had trouble with his eyes, so

he read no newspapers.
"But he sold good hot dogs.

"He put signs up on the highway telling how good they were.

"He stood by the side of the road and cried: 'Buy a hot dog, Mister.'

"People bought.

"He increased his meat and bun orders.

"He bought a bigger stove to take care of his trade.

"He finally got his son home from college to help him out.

"But then something happened.

"His son said: 'Father, haven't you been listening to the radio? There's a big depression coming on. The European situation is terrible. The domestic situation is worse.'

"That made the father think: 'Well, my son's been to college, he reads the papers, and he listens to the radio. He ought to know.'

"So the father cut down on his meat and bun orders, took down his advertising signs, and no longer bothered to stand out by the highway to sell his good hot dogs. Sales fell fast, almost over night.

"'You're right, son,' the father said to the Boy. 'We certainly are in the middle of a great depression. There just isn't any business.'"

IN THESE TIMES, when everyone is an economic soothsayer, and when no prophets can agree, we need to keep a balance about the future. This article, we feel does that.

ROY FAHLSTROM

Some Say

"It's a Great Life"

Will you have One?

Chieftain ...

Conventional Compressors.

TECUMSEH PRODUCTS COMPANY

Tecumseh, Michigan

....

EXPORT DEPARTMENT, 2111 WOODWARD AVENUE, DETROIT I, MICH.

Norld's largest independent producer of Compressors and Condensing Units

Walk-In Keeps Dry Wines Ready-Chilled, Spurs 'Impulse' Buying

DENVER-A record-breaking volume of wine sales has been attained by Plaza Liquors, operated here by Ben Cohen, with the installation of a huge walk-in display refrigerator showing dry and sweet wines chilled to proper temperatures.

Cohen, a package retailer of 15 years experience, has been steadily promoting dry wines by concentrating on their value in making meals more tasty as well as for serving guests at any time.

The 6 by 6-ft. walk-in refrigerator, which was installed by G. F. Smith Refrigeration Service, is located at the rear of the store. A 1-hp. condensing unit powers a dome-type cooler in the top of the walk-in section which will hold 40 cases of wine. It also operates cooling coils in the four reach-in compartments at the front of the box.

In these compartments, Cohen has dinner wines, May wines, Riesling, zinfandel, burgundy, port, white port, and claret. The compartments are refrigerated at from 35 to 45° F. according to their contents.

The mass display under refrigeration invariably gets instant attention from incoming customers, according to Cohen. He claims that it has also been responsible for orders as large as 500 cases of wine at one time.

Frigid Igloo To Make **Commercial Equipment**

YONKERS, N. Y .- Frigid Igloo Mfg. Corp. has been formed and is in operation here in the manufacture of a varied line of commercial refrigerators.

Lawrence V. Milano, Louis Fantozzi, and Robert Edelson are the partners who organized the firm, which has produced 10,000 sq. ft. of plant space in which to manufacture meat and dairy display cases, florists' refrigerators, reach-in cabinets, and frozen food cabinets.

Milano and Fantozzi are "10-yearmen" in the refrigeration field, and the specialists in sheet metal fabrication. They have worked for Coldin Corp. and Evans Mfg. Corp. Edelson worked in sheet metal fabrication in aircraft repair during the war. Milano was with the air forces, and Fantozzi worked in the Navy shipyards as a sprayer.

Frigid Igloo will produce cabinets using all high-grade materials, such as Thermopane glass, hard rubber doors and jambs, heavy gauge metal, and heavy duty refrigeration coils, Milano says.

Low-Temperature Changes Name

NEW ORLEANS-Management of Low-Temperature Equipment, Inc., 636 Carondelet, which handles Schaerefrigeration equipment, announces that the firm name has been changed to Southeast Distributors.



GREENE MOULDING ASSEMBLIES

If you are using plated castings or onepiece stampings for grille work, louvres, decorative trim, etc., Greene Moulding As-semblies can mean real savings for you. With them you get

- · Lower cost per unit
- · Equal or greater strength
- · Reduced weight
- Economical repair or replacement
- · High quality appearance

CLIP AND MAIL TODAY

Greene Manufacturing Co., Inc. 1028 Douglas Ave., RACINE, WISCONSIN ☐ Please supply me with complete infor-mation on savings possible with Greene Moulding Assemblies

☐ I am attaching blue prints and specifica-tions for quotes

COMPANY CITY STATE

How Much Will It Hold?

Research Shows Capacities of Commercial Cases In Terms of Actual Merchandise

KENDALLVILLE, Ind.-Just how much, in terms of actual merchandise, will the various sections of a refrigerated vegetable or dairy display case hold?

That question was turned over to the product research and development department of McCray Refrigerator Co. which dug up the following answers:

The display section of a commercial case that contains an area of 231/2 sq. ft. will hold the following:

Tomatoes at the rate of 108 lbs. per running foot; radishes at 44 lbs. per running foot; turnips 65 lbs.; cauliflower 36 lbs.; endive, spinach, etc., 17 lbs.; or cabbage or celery 60 lbs. per running foot.

In other terms it will hold 24 bu. of tomatoes, 13 bu. of turnips or 90 heads of average size cauliflower.

A storage section with a capacity of 33 cu. ft. will hold four crates of lettuce measuring 18% by 24½ by 13½ in., seven crates of oranges at 15 by 30 by 15 in.; or nine crates of strawberries at $24\frac{1}{2}$ by $11\frac{3}{4}$ by $11\frac{1}{2}$.

Or it will hold nine full bushel baskets 18 in. in diameter and 141/2 in. high, 18 cases of milk in square quart bottles, 12 cases of milk in round quart bottles, 16 cases of 3 by 3-in. square cartons, or 720 halfpint bottles without crates.

Turning to the dairy case, the researchers found that a display shelf measuring 66 by 14 in. will hold 406 ½-lb. packages of cheese, 82 2-lb. packages, or 290 5-oz. jars.

A shelf measuring 69 by 15 in. will hold 300 1-lb. bricks of cheese, 172 1-lb. Edam cheeses, 328 11-oz. Baby Gouda, 134 2-lb. packages of cheeses, 630 ½-lb. packages of processed cheese, 137 1-lb. cups of cottage cheese, or 165 boxes of six 3oz. packages of cream cheese.

It can also hold 250 1-lb. standard packages of butter, 233 standard 1lb. packages of margarine, or 224 half-pint bottles of milk 21/8 in. square by 51/2 in. high.

A shelf with one section measuring 29 by 41 in. and two others measuring 13% by 24% in. can store 132 cartons of eggs, 1-doz. to the carton; 504 1-lb. packages of butter, 152 square or 106 round quart bottles of milk; or 181 quart cartons 3 in.

McCune Co. Handles Steinhorst Line of Freezers, Milk Coolers

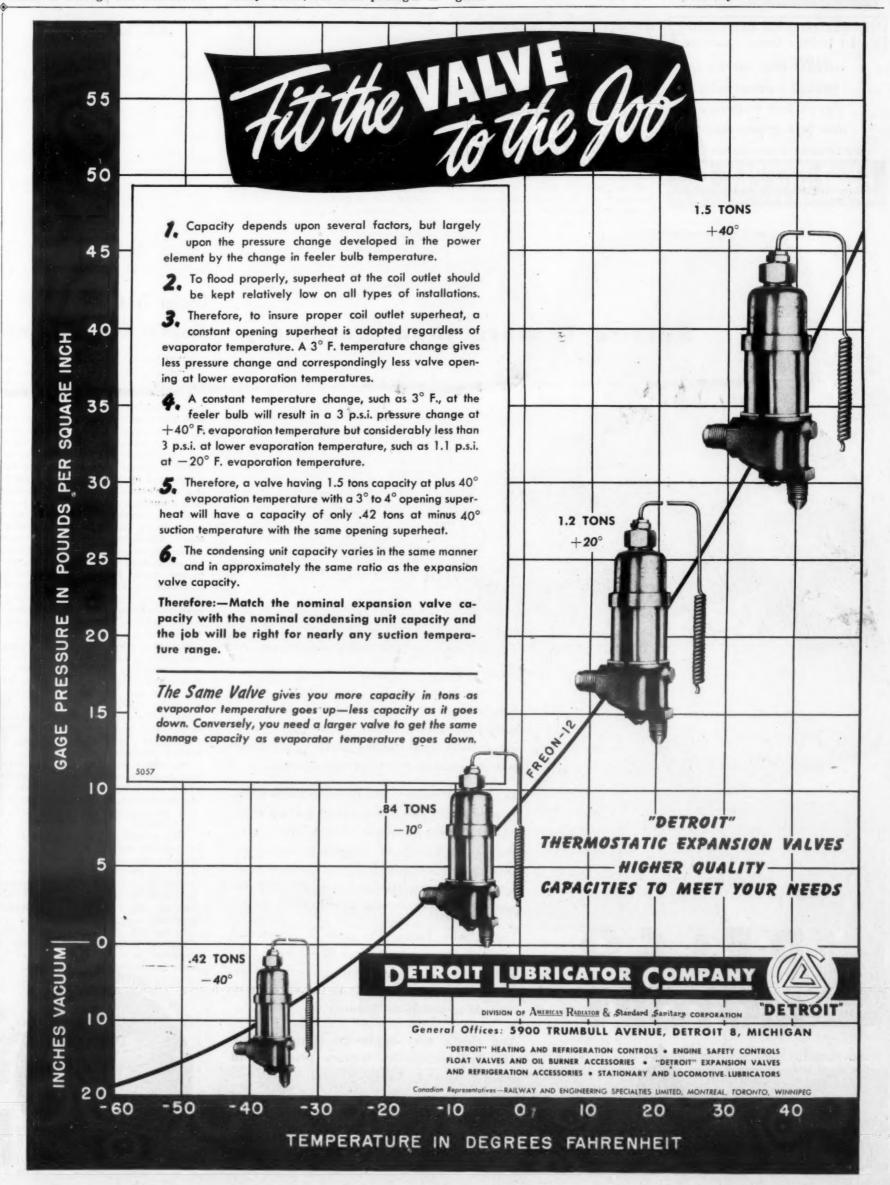
UTICA, N. Y .- Henry Steinhorst, president of Emil Steinhorst & Sons, Inc. has announced the appointment of McCune & Co. of Youngstown, Ohio, as distributor of Steinhorst freezers and milk coolers in western Pennsylvania, Ohio, and West Vir-

Walter Martin Appointed Industrial Engineer at **Baker Refrigeration Corp.**

SOUTH WINDHAM, Me. - Appointment of Walter T. Martin as industrial engineer at Baker Refrigeration Corp. (formerly Baker Ice Machine Co., Inc.) has been announced by T. S. Pendergast, general manager. He will have complete supervision of all time, motion analysis, and methods engineering.

In making this announcement, Pendergast stressed that the appointment was an addition to the Baker

Martin comes to Baker directly from Universal Cooler Div., International Detrola Corp., where he spent the past three and a half years in the time study department. Prior to this. he was with Kelsey-Hayes Wheel Co. of Detroit for over four years. He is a graduate of Detroit Time Study school and also attended Oklahoma







REFRIGERATION & AIR CONDITIONING UNITS . PARTS . TOOLS . SUPPLIES

AIRO mail service is prompt—dependable.
Saves you valuable time lost in pick-ups.
Write for catalog on your letterhead.

AIRO SUPPLY CO.
2732 N. ASHLAND AVE., CHICAGO 14, ILL.

Gibson Promotion Offers Card on Which Patron Can Show Age of Appliances

GREENVILLE, Mich.—Key piece in a new sales promotion now being pushed by Gibson Refrigerator Co. is a tabloid which offers a matched set of measuring spoons in four colors as a means of building the dealer's store traffic.

The free offer is made to enable the dealer to qualify prospects, according to Gregory V. Drumm, manager of advertising and sales promotion. Each prospect is asked to fill out a card showing the ages of her appliances. The broadside shows Gibson refrigerators, freezers, and ranges.

The promotion is packaged in a kit which also contains a reprint of the full-color Gibson advertisement now appearing in consumer magazines, and proofs of retailer's newspaper advertisements.

In addition, the kit, which ties in with the use of Gibson display and sales training tools, includes a schedule sheet to insure a follow-up of each dealer's advertising and promotional activity.

Utica City Appliance Co. Names Odames Household Consultant

UTICA, N. Y.—Appointment of Miss Elizabeth Odames as consultant with the Utica City Appliance Co. has been announced here.

Miss Odames will advise on the care and use of home appliances and on general household operations.

is more

Customers Paying Phone Bills In Store Give Dealer Chance To Sell

HUDSON, Mass.—One way to hurdle the handicap that lack of store traffic imposes on the appliance dealer serving a rural area is to act as a pay station for telephone bills.

That idea has brought 70% of the people in his retail area into his showroom, B. R. Paulino, operator of the Hudson Appliance Co. here, has reported. And they keep coming back every month.

Naturally, Paulino has located the pay station 'way back in the rear of the store so that all customers have ample opportunity to look over his appliance displays on the way in and on the way out.

If they stop to take a closer look, Paulino is always on hand to furnish them with the information they desire

Another method Paulino uses to keep in touch with his customers is to have his service department periodically check on the operation of appliances in the home. In this way, they get a chance to notice any obsolete appliances and to pick up tips on new prospects.

Paulino also does a lot of promoting through direct-mail campaigns. He maintains a carefully prepared list that aims at 100% coverage of the homes in his trade area.

To help in selling complete modern kitchens to farmers, Paulino operates closely with local plumbers and carpenters to provide quick and efficient service.

than machinery

Truck Carries Appliances to Rural Areas



A member of the Northern Furniture Co. staff discusses the purchase of a home appliance with one of the many rural customers whose attention has been attracted by this "rolling" dealership.

LEGAL AD

'Over-Parked' Appliances
Theme Builds 2-Way Traffic

UTICA, N. Y.—Berger's moved a large number of appliances with a

special promotion built around a

traffic court theme.

A large advertisement carried a photo of a traffic policeman making out a traffic ticket.

"These Appliances Over Parked," said the advertisement caption, "And Just Can't Pay Their Fine.

"Come bail them out at Berger's Traffic Court. Plan to attend Night Court Friday till 9 p.m. Many other 'criminals' to go on trial. It will pay to be in court this weekend."

Dealer To Operate 1949 Hotpoint Kitchen at Show

PEORIA, Ill.—Participating in the second annual Peoria Home show, April 2-9, P. A. Bergner, Peoria department store, will feature a complete working Hotpoint kitchen of matched 1949 appliances which will be given away as prizes to visitors attending the show, Edward R. Taylor, manager of market development, Hotpoint, Inc., has announced.

Donated by the department store, the all-electric kitchen will include an automatic pushbutton range, automatic dishwasher, garbage disposal, refrigerator, and matched cabinets. Miss Elizabeth Lyman, Hotpoint home economist, will assist Bergner's by conducting daily cooking schools in the model kitchen which will be mounted on the armory stage. In addition to preparing hot meals of several courses, she will show housewives how to package and freeze foods.

General Electric Supply Corp., Rockford, (Ill.) Hotpoint distributor, will cooperate with Bergner in the home show activity. Bergner's will use radio and newspaper advertising to invite visitors to the event. The store will run a half-page advertisement prior to the show, and a half-page daily advertisement during the show's duration.

An added incentive for attendance will be 50 shopping bags of groceries given away daily as door prizes. At the completion of the show, the store will give away each appliance in the kitchen.

The cooking school will last an hour and a half each afternoon. During the time that the cooking school is not in progress, Miss Lyman will demonstrate appliances and answer questions at a Hotpoint booth displaying the company's individual products.

Sponsored by the Peoria Junior Chamber of Commerce, the show is expected to attract about 40,000.

Partners Sell as They Go, Keep Freezer Fully Loaded

GARLAND, Utah—Merchandising major appliances from the rear end of a truck is not a new idea, but the Northern Furniture Co. here has added a twist that makes it pay off two ways.

R. N. Campbell and Jerry Mc-Fadden, operators of the store, decided last year that the way to sell appliances in the surrounding rural areas that has been recently electrified by the Utah Power & Light Co. of Salt Lake City, was to load them on a truck and roll them right up to Mr. Farmer's back doorstep.

So they bought a used truck for \$200 and a surplus tarpaulin to cover it from the War Assets Administration. Then they started loading on the appliances—refrigerator, ironer, home freezer . . . wait a minute!

What more effective way of demon-

What more effective way of demonstrating a home freezer than to load it up with frozen foods, meats, and ice cream? And then sell these frozen items to the farmer?

Last September their record was \$4,000 worth of appliances and up to 35 quarts of ice cream per day sold from the truck.

McKown Buys Brown Heating

ARAPAHOE, Neb.—Robert Mc-Kown has purchased the equipment of the Brown Heating and Plumbing Co. here and is opening a new electrical appliance sales and service store.





Here at Delco Products we recognize the importance of modern machinery. The completeness of our up-to-date mechanical facilities attests to that. Physically, we're more than equal to the swift production pace manufacturers are setting today.

But Delco Products also believes there is an ingredient far more integral to service than even the finest machines. It's a human element—the faculty of regarding each customer as an individual. It's an awareness of his particular requirements, and the disposition of all our resources to help meet them.

That's why Delco Products is organized primarily to accommodate our customers. That's why our scheduling procedures are flexible enough to handle last-minute changes in design or quantity.

And that's why appliance manufacturers who require quality motors produced in quantity trust Delco to deliver.

DELCO PRODUCTS DIVISION, GENERAL MOTORS CORPORATION, DAYTON, O.
Sales Offices: CHICAGO . CINCINNATI . CLEVELAND . DETROIT . HARTFORD, CONN.



Are You Looking for An Easy Way to Handle Stoves, Refrigerators and Freezers

Solve Your Problem with the New ROLL-OR-KARI Dual Trucks

Patented Step-On-Lift • Folding Handles
Capacity 1000 Lbs. • Shipping Weight 40 Lbs.
WRITE TODAY

THE ROLL-OR-KARI CO.

MANUFACTURERS
ZUMBROTA • MINNESOTA

Dealer Limits Drawing

Tickets To Home Owners

DETROIT - Only home owners

were permitted to participate in an

appliance prize drawing conducted

by the Gulu Plumbing & Heating Co.

of suburban Hazel Park as part of

the firm's contribution to the recent

Tickets, which were passed out at

the Gulu booth promoting Youngs-

town kitchens at the show, gave the

contestant a choice of one of three

prizes she could have if her ticket

The contestant was to mark on

"I am interested in your kitchens.

"I am interested in your gas water

"I am interested in your appli-

the ticket the prize she desired. She

was also to mark the following appli-

local Builder's Show.

were drawn.

cable statements:

'John and Mary' Use Plain Business Arithmetic To Figure Cost of Keeping Their Small Appliance Store Doors Open

MADISON, Wis.—Money invested in buildings and equipment should carry a proper share of the expense load and should bring a reasonable return of not less than 4%, J. D. Howard, general sales manager for the Wisconsin Power & Light Co. reminded appliance dealers recently.

Writing in the utility's "Dealer Doings" bulletin, Howard drew a word picture of how "John and Mary" worked out the "business arithmetic" of their appliance shop "so they can avoid the rough and rugged spots on the road ahead."

"Mary set up a table something like the one in the next column," Howard said.

"John and Mary knew that repairs are normally considered operating expense, but they wanted to know how much gross profit was needed to reimburse them for being the 'landlord' and for owning the business; this amounts to about \$254 per month. They figured this was a base cost before they put the sign on the front door—'OPEN FOR BUSINESS.'

"Mary also set up a table showing how much it costs to keep the front door open, and John agreed that they should pay themselves salaries for their hard work. The table worked out about like this:

Yearly Operating Expenses

Salaries to us\$	4,000
Wages to servicemen	2,700
Heat, water, light, etc	600
Delivering and installing	600
Guarantee service expense	480
Advertising and	
sales materials	1,000
Taxes	1,000
Miscellaneous supplies	500
Uncollectible accounts	500
TOTAL\$1	1,380

"These expenses of about \$948 per month, added to the 'Landlord' expense of \$254, made \$1,202 per month.

"John figures that by doing good repair work he can maintain an average billing for service labor of \$200 per month; so; the break-even point requires a gross profit on appliance sales of \$1,002 per month.

"After checking invoices for the past year, Mary found that their average discount was 33%, and that they need a sales volume at full, regular prices of \$3,030 per month to break even.

"It looks like John and Mary are going to do all right, because they have learned the importance of business arithmetic."

Bergman Norge Discontinues Small Appliance Distribution

BUFFALO—Bergman Norge Co., Inc., wholesaler, announced it has discontinued permanently the distribution of small appliances. Seven lines are involved.

Irving Block, sales promotion manager, said the firm will center all activities on its major appliance lines, including Norge, Hamilton drier, Simplex ironer, and American Central kitchen equipment.

WAGNER Commutators

They are built as an original motor part—your assurance of an accurate all-around fit for correct operation. Liberal design provides extra strength, permits refacing several times, if necessary, with safety. Segments are accurately milled to facilitate connection of rotor leads. Get them now from your Wagner distributor. Name on request.

Wagner Electric Corporation

Yearly Cost of Facilities Needed to Carry on the Business

						Interest	
		Ori	ginal			on	Yearly
Item	Cost	Re	pair	Depre	ciation	Investment	Cost
Building\$	20,000	(2%)	\$400	(2%)	\$ 400	\$ 800	\$1,600
Furniture & Fixtures	3,000	(2%)	60	(8%)	240	120	420
Tools & Equipment	2,000	(2%)	40	(10%)	200	80	320
Truck	1,600	(10%)	160	(10%)	160	64	384
Inventory	8,000		0		0	320	320
Total\$	34,600		\$660		\$1,000	\$1,384	\$3,044

McCormack & Co. Named Distributor for Admiral

SAN FRANCISCO—McCormack & Co. here has been appointed distributor of Admiral products for northern California and western Nevada, D. F. McCormack, president, announced.

At the same time, McCormack announced the appointment of A. J. Lindholm as vice president and general sales manager in charge of a field staff of 16 salesmen.

During the war, Lindholm was officer-in-charge of Radio San Francisco, the funnel for all Navy communications in the Pacific theater. Prior to the war, he was general manager of Ray Thomas Co. here for 10 years.

McCormack & Co. was founded four years ago. Before starting his own company, McCormack was vice president and general manager for 10 years of Sherman Clay & Co., San Francisco.

Distributor To Consolidate Operations In New Building

KANSAS CITY, Mo.—J. H. Wimberly, Jr., president of the Superior Distributing Co., 2305 Pennway St., here recently announced the acquisition by his company of a five-story and basement building at the southeast corner of 16th St. and Baltimore Ave. Superior intends to consolidate all its operations in this building, he said.

Plans are being prepared for an extensive remodelling of both exterior and interior of the building, including a modern front. Offices and display rooms will be air conditioned.

New receiving docks and shipping facilities will be built, including a conveyer system for handling merchandise between floors. At completion of these projects the building will represent an investment of approximately \$175,000.

Inland Empire Wholesalers Bow In with 3-Day Event

SPOKANE, Wash.—A three-day open house marked the recent opening of the display rooms and offices of the newly-formed Inland Empire Wholesalers, wholly-owned subsidiary of Tull & Gibbs, large furniture store here.

Charles Hebberd and Guy S. Hebberd are president and secretary-treasurer, respectively, of both organizations. L. K. Vallandingham has been appointed manager of Inland Empire's appliance division, and N. P. Rich manager of the radio division.

Charles Hebberd said the new company, located at South 110 Wall St., was formed "to serve our expanding wholesale and distributing business in electrical appliances and radios."

Comfort Heating Incorporated

BUFFALO—Comfort Heating, Inc. has been incorporated here with capital of \$10,000. Incorporators are John F. Gunderman, Jr., Janet S. DeCue, and Julia Auria.

If You Haven't Got One - Write Today!!

Yes, if you haven't received your questionnaire for your listing in the new 1949-50 Directory of manufacturers, write for one without delay.

We are now gathering and compiling this information and want to make this edition as accurate and complete as possible. We can only do this if everyone will help. Listings are free and of year-round value to you.

REFRIGERATION & AIR CONDITIONING DIRECTORY 450 .W. Fort St. Detroit 26, Michigan

13 35-mm. Film Playlets Made for Gibson Dealers

GREENVILLE, Mich.—Gibson Refrigerator Co. announced that United Film Service, Inc., Kansas City, Mo., in cooperation with the W. W. Garrison & Co. agency of Chicago, has created for the use of its dealers a series of 13 35-mm. playlets, portraying and demonstrating the advantages of Gibson refrigerators, ranges, and home freezers.

The films are designed to be displayed on the screens of moving picture theaters at a part of their regular performances.

The playlets, which feature demonstrations of the products, run slightly less than one minute, and approximately the last third of each film is devoted to a personalized portrayal of the dealer's firm name, the location of his store, and his favorite motto.

Gibson, by arrangement with its distributors, will participate in the cost of displaying these advertising films to the extent of 50%.

The promotion is part of the comprehensive Gibson program shown at its fall convention and now going into full swing.

Backus Appliance Joins With Tompkins Hardware

MEXICO, N. Y.—The Backus Electrical Appliance Store and Tompkins Hardware, both located on Main St. here, have entered a partnership to be known as the Tompkins and Backus Hardware Co.

Metered Refrigeration



Los Angeles Dealer Revives 'Painless Pay' Meter Plan

LOS ANGELES—The meter plan of paying for major appliances is back again. It popped up here in a display advertisement run by Elster's under the alias "Painless Pay Plan."

Says the advertisement: "Now you can afford to buy a brand new sensational 8.1-cu. ft. capacity, 1949 Philco refrigerator as shown as follows. Pay minimum regulation down payment and then deposit only 50 cents per day in a special meter we furnish for your convenience. We do the rest."

The advertisement also declared, "We need used refrigerators. Liberal allowances."





ADVANCE DIE & TOOL CO

PHONE: WOodbine 9191

They'll Do It Every Time . . . By Jimmy Hatlo





Do You Have 'One Foot In the Door'?



"STOP THIE

This cop has the situation well in hand, and so have Carrier Compressors when it comes to keeping oil from robbing a refrigerant of its cooling effect. And that's mighty important to your customers. It means the kind of refrigeration installation they want.

Where ordinary compressors let oil steal into the refrigerating coil, Carrier Compressors keep it where it belongs - in the crankcase. They accomplish this by a series of Carrier-engineered steps, among them: an unusually large suction manifold ... a 90° turn in the gas flow ... an oil return check valve between the suction manifold and the crank-

case. As a result, they deliver efficient, low-cost refrigeration from the start – and year after year.

For the best job—the kind of job that leads to more installations for you—put in Carrier balanced refrigeration. Carrier Compressors and Carrier Cold Diffusers are designed and precision-built to team together for maximum refrigeration at minimum cost. Carrier know-how, developed through long years of research and practical experience in the field, assures you of outstanding equipment. Write for the Carrier Compressor Catalog CR240 or the Carrier Cold Diffuser Catalog CR241. Carrier Corporation, Syracuse, New York.



AIR CONDITIONING . REFRIGERATION

AN INTERNATIONAL INSTITUTION . SUBSCRIBERS ALL OVER THE WORLD

Trade Mark AIR CONDITIONING AND registered U. S. Patent REFRIGERATION

F. M. COCKRELL, Founder

Published Every Monday by BUSINESS NEWS PUBLISHING CO. 450 W. Fort St., Detroit 26, Mich. Telephone Woodward 2-0924

Subscription Rates: U. S. and Possessions, Canada, and all countries in the Pan-American Postal Union: \$5.00 per year; 2 years \$8.00. All other foreign countries: \$7.00 per year. Single copy price, 20 cents. Ten or more copies, 15 cents each; 50 or more copies, 10 cents each. Please send remittance with order.

GEORGE F. TAUBENECK Editor and Publisher

PHIL B. REDEKER, Editorial Director

C. DALE MERICLE, Associate Editor

JOHN SWEET, Assistant Editor HUGH MAHAR, Assistant Editor GEORGE HANNING, Assistant Editor ROY DENIAL, Assistant Editor Editorial Assistants: MARGARET DEAN, MARGARET POMMERENING, LOUISE GINET, AND LORRAINE MAJOR

Est. 1926

E. L. HENDERSON, Business Manager ROBERT M. PRICE, Adv. Representative ALLEN SCHILDHAMMER, Adv. Rep. ALLEN S. RUSSELL, Adv. Rep. BETTY JANE KING, Adv. Secy. YVAUGHN CRYSLER, Subscription Mgr. WALTER J. SCHULER, Production Mgr.

Member, Audit Bureau of Circulations. Member, Associated Business Papers.

Volume 56, No. 13, Serial No. 1,045, March 28, 1949

Human Nature and Simple Arithmetic

UNCONSCIOUSLY, perhaps, the United States Treasury Department itself has submitted a conclusive argument against President Truman's demanded four-billion-dollar tax increase program. And, in so doing, it has endorsed tax reductions as the best means of balancing the national budget.

The 80th Congress, which Truman reviled so nastily, not only did a great favor to groaning taxpayers by allowing them the first tax cut they have had in many years, but did a favor to the Treasury Department at the same time.

This remarkable service to the United States of America was performed by that "worst Congress in history" in the face of violent opposition from Truman's social planners and spenders.

Why and how were taxpayers eased of oppressive burdens and the budgeteers satisfied simultaneously? Because this tax reduction actually raised Federal revenues!

A sharp decline in Federal revenues, together with another sadly unbalanced budget, was predicted by Truman's sourpusses when taxes were lowered. However, this lugubrious situation did not come to pass. The Treasury has discovered that 1948's lower income taxes produced a total sum almost three billion dollars greater than 1947's higher rates yielded.

In addition, the Administration succeeded in balancing our national budget for the first time since Roosevelt II-proving the truth of an economic fact which Roosevelt and Truman apparently never knew, in their economically illiterate "innocence."

That fact is none other than the Law of Diminishing Returns, which has long been confirmed by all competent tax authorities and theoretical economists, as well as by practical businessmen.

When tax rates transcend a certain level, one of two reactions is imminent. Either normal business investment and business transactions can no longer expand, or else they actually decline-with a corresponding decrease in the government's share of the total "take" of tax returns.

The late Andrew W. Mellon, in the era directly following World War I, endorsed tax reductions for the nation, predicting that an abandonment of wartime rates would result in an increase in peace-

His prophecy proved to be 100% correct. Following his tax cutting, a period of prosperity and industrial expansion ensued, during which the national debt was reduced by billions of dollars. The infallibility of this economic law again has been demonstrated by the tax reductions sponsored by the castigated Republican 80th Congress. For the preponderantly Democrat 81st Congress to ignore this time-tested principle would be sheer folly.

Truman and his advisers also persist in ignoring another very important economic postulate which has been proven by financial history: when taxes consume more than one quarter of the national income, industrial decline is sure to follow.

Here's what happens when excessive taxation ignores the Law of Diminishing Returns:

Investors, denied incentives to risk their savings, refuse to invest. Production then lags, because worn-out machines aren't replaced. Unemployment follows. Selling stagnates. A depression, thereupon, is inevitable.

Our country now is confronted with a forty-one-billion-dollar Federal budget; numerous state budgets in excess of a billion dollars each; and counties and municipalities seeking enormously increased funds for more dizzy public spending.

Unless we voters become alarmedly aware of the dangers of excessive taxation and wasteful government spendthrift policies, we'll tax ourselves into a Depression and right into the hands of the Communists.

Congress would do well to study the current Treasury Department report, and balance it against the high tax demands of Truman's cocky "we got a mandate" Administration.

Lower taxes, like lower prices, often result in greater volume and higher returns.

LEFT: Sketch shows the method by which this

gasket rack, now in use

at Refrigeration Service,

Inc., can be constructed

by any wholesaler.

RIGHT: As the rack ap-

nears in actual use. Over-

hanging portion has no

support in order to make

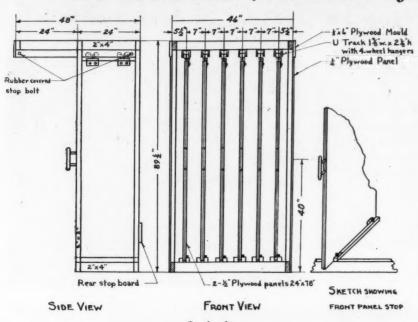
this means of storage

easier. Consequently the

entire rack must be

bolted down to prevent tipping.

How an Essential, But Low Profit Item Can Be Handled Effectively



Gaskets Racked Up on Series of Sliding **Panels Save Wholesaler Time and Space**

By L. P. Roth, Refrigeration Service, Inc.

Stocking compressor gaskets presents a serious problem for the refrigeration wholesaler. The space needed is large, profit per sale is low, and considerable time is required to determine the gaskets which are wanted.

For a long time we at Refrigeration Service, Inc., recognized this problem without making any attempt to correct it. Finally, last year, we began considering of all the possible ways in which we might stock comrack pictured here.

Such a rack has several advantages over storage in bins or drawof floor space—the one pictured here requires a space 4 ft. square and accommodates all of our compressor gaskets with some extra space for expansion.

EASY TO MATCH SAMPLES

All gaskets are quickly accessible, making it easy to match a sample when necessary. The rack may be so placed that customers can find their own gaskets, thus saving the time of the counterman. Finally, this rack is less expensive to build than almost any other type of storage facility.

The rack can be made in various sizes, but the one shown here has six two-sided panels, each having an area of 13 sq. ft. per side, or a sum total of 156 sq. ft. of storage space.

The frame is built of 2 x 4's and 2 x 2's with the two outside ends

pressor gaskets. The final result of this combined effort was the gasket

ers. It takes up a minimum amount

for the top 6 in. which is 1/2-in. plywood. There are six sliding panels, each

one made of two sheets of 1/2-in. plywood 2 ft. wide by 61/2 ft. high. These panels ride on standard Ushaped garage door tracks, each panel being supported by two fourwheel hangers. Each panel is guided at the bottom by two strips of wood 1 in. square.

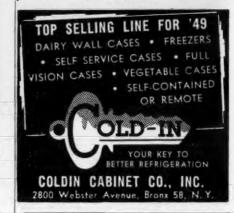
Stops are provided both front and

back and at both top and bottom of the panels so that they will not tip when the stop is reached at either end of the travel.

In order to make the extended panels easy to get at, no support is used on the overhanging portion of the rack. This, however, makes it necessary to fasten the rack to a wall with leg bolts in order to prevent the rack from tipping over when several panels are pulled out

In building the rack it was first completely assembled; then the panels were removed, a set at a time, and, the gaskets were located as they were to hang on the panels. Headless nails were driven into the panels at an angle to hold the gaskets, and the panels then reassem-

Anyone who is interested in building one of these gasket racks can obtain an 81/2 x 11-in. sketch showing details of the assembly by writing to Refrigeration Service, Inc., 3109 Beverly Blvd., Los Angeles 4.

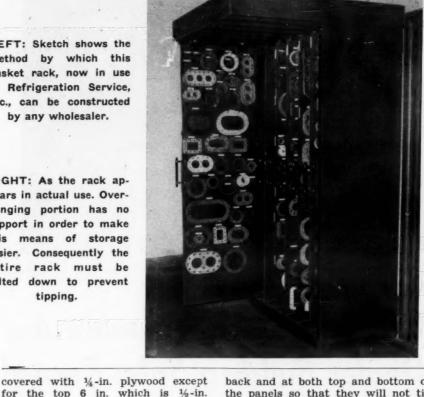


To Reach All Key Men . . . in the Refrigeration and Air Condi-tioning industry throughout Canada, use the only Canadian publication covering the field.

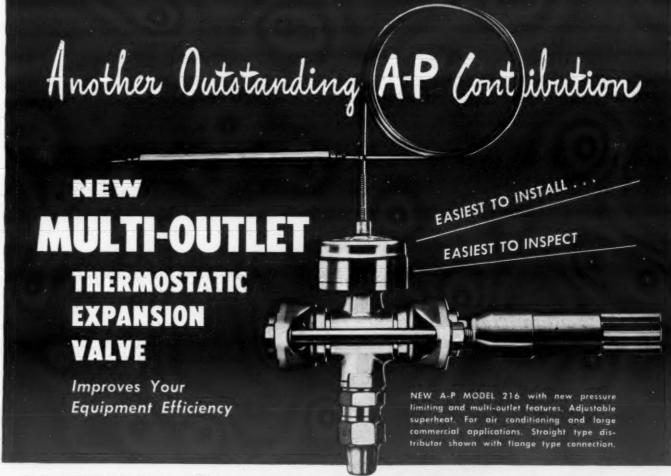


A "National Business" Publication 137 Wellington St. W., Toronto, Ont.



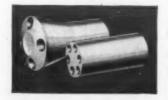






DEPENDABILITY IS A GOOD COMPONENT FOR YOUR PRODUCTS

 In the new A-P Thermostatic Expansion Valve you have an engineering "package" — a single compact unit with improvements that cut service costs and step up performance. For example, you reap the benefits of pressure-limiting overload protection, an internal or external equalizer, plus multi-outlet distributor. A-P Model 216 with its distributor feeds twelve or less lines at a time. No line is overfed, none neglected . . . each receives an exactly equal supply of refrigerant. This is the way to get top coil efficiency for maximum refrigeration. The new bulletin, yours on request, tells the whole story.



SEPARATE multi-outlet distributors for easy connection to valve after installation to coils. Straight or mushroom type. No need to buy or stock separate valves for varying numbers of outlets.



A-P MODEL 216 **MULTI-OUTLET VALVE**

Illustration shows sweat type connection with mushroom type Distributor and multiple coil autlets. A-P Model 216 is available in three sizes: 3.6, 7, and 11 tons Freon capacity: with distributor, 3, 6.5, and 10 tons capacity. For air conditioning and large commercial





E Refrigeration Valves

STOCKED AND SOLD BY GOOD REFRIGERATION WHOLESALERS EVERYWHERE . . . RECOMMENDED AND INSTALLED BY LEADING REFRIGERATION SERVICE ENGINEERS.





(LEFT) Z. O. Jennings is a veteran fixture man. (RIGHT) Hal Fowler, city salesman for Jennings, checks catalog for T. A. Woodell of Dierkes Lumber & Coal Co., Mountain Pine, Ark.

Adequate Shop Facilities Prove Valuable Aid To Commercial Dealer Building Sales Record

By C. Dale Mericle

LITTLE ROCK, Ark.—"The better you serve the easier you sell."

Starting out with that theory and a lot of obligations but no money 25 years ago, Z. O. Jennings has chalked up an enviable sales record in commercial refrigeration here.

"I have always kept that theory in mind, and that is one reason for our having a well-equipped and wellmanned service department," Jennings says.

The Jennings Fixture Co. here does have an exceptionally complete shop for this type of an operation, including a long test bench and rack for checking expansion valves, thermostatic and pressure controls, as well as electric motors, in addition to the usual type of equipment to be found.

Primarily the firm is interested in sales of cases and equipment to grocery stores, butchers, and restaurants, and handles the McCray and Tyler lines of refrigerated equipment plus allied lines for their prospects.

8 ON SERVICE, INSTALLATION

Even so, Jennings employs eight service and installation men as compared with three salesmen (counting himself) and a secretary.

The firm operates out of its own building, a 75 by 140-ft. structure with second-floor storage and stockroom space which Jennings has occupied since 1933. Two years ago he invested heavily in remodeling the place, giving it a modern appearance. Jenning's personal background in

selling fixtures goes back almost 30

CASE INSTALLED BACKWARDS

Through the years Jennings has witnessed numerous changes in the fixture business, and has always managed to keep at least abreast of new developments if not ahead of them. A strong proponent of open cases, he supplied the equipment for a unique installation at Little Rock's Lido Inn.

This case went in with "reverse English" on it, as it were, for it was purpose. installed backwards—on The open case was originally introduced so that the customer in a store could make her own selection of foods and thus serve herself, and usually that's the way it's used.

At Lido Inn, however, this open case is employed as a salad refrigerator, turned around so that the chefs who prepare the salads can hand them across the top of the cases to the waitresses.

Looking at the service opening from the dining room, one does not see any evidence of the refrigerated case, although there is a large reachin refrigerator behind it. The back of the case has been furred in to

(Concluded on Next Page)

Jennings Fixture Co. Has Elaborate Setup for Testing Motors, Controls

C. A. Wentworth, a serviceman with Jennings, starts a test on thermostatic expan valve hooked in lennings





Here Wentworth runs a Prony brake test on an electric motor. The bench is equipped to make complete electrical tests of motors and controls.

You can put NEW profits AND IN YOUR CUSTOMERS'

IF YOU CAN QUALIFY AS A FRANCHISED DEALER ON ONE OR MORE **PRODUCTS**

There's a twofold profit story for franchised dealers of York equipment-a full margin of profit for the dealer, and greater profit for the purchaser.

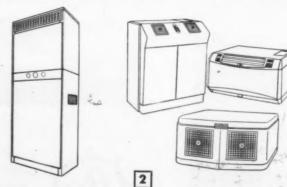
That's because each piece of York equipment is designed and built to bring in more business, or cut costs for the purchaser.

York dealers are backed by a line of mechanical cooling equipment unequalled in the field: air conditioning of all types . . . FlakIce Machines . . . Automatic Ice Makers . . . Frozen Food Cabinets . . . cooling and condensing units. Nearly every business is a prospect for one or more York products, and every York product offers a saving to the user.

In good times or bad, YORK Refrigeration and Air Conditioning SELLS ... because it makes a profit for the user as well as the dealer who takes the order. It's time for you to step into the picture. Investigate the opportunity a York dealer franchise offers you, whether it's on Room Air Conditioners, Ice Makers, Frozen Food Cabinets, or on the full profit making York line



YORK PRESENTS AN OUTSTANDING NEW ROOM AIR CONDITIONER PLUS A SENSATIONAL ICE CUBE MAKER TO ROUND-OUT THE



1

Yorkaire Conditioners—For retail stores, restaurants and offices—are self-contained, quickly installed, occupy

only 21 x 36 inches of floor space, Eas

ily moved if owner changes location.

Yorkaire Room Conditioners—Perform all the functions of true air condi tioning. For home or office-York quality at a new low price that all your prospects can afford.



York Automatic Ice Cube Maker-Requiring very little floor space, it pro duces an ever ready supply of sanitary crystal-clear ice cubes for botels, club and restaurants at rate of 8,000 per day.



York Flakice Machine-Provides a business with its own supply of Frosty Ribbons of fresh, clear ice. For hotels, restaurants, hospitals, dairies and restaurants, hospitals, dairies and other users of crushed ice in quantity,



Extra-heavy non-collapsible shell. One-piece shell. Removable inlet and outlet screens, permitting quick easy cleaning without damage. Finger type screens with extra-large screen area. Bronze coil spring protects outlet screen from collapse. Positive 3-point seal. End adapters doubly protected by brass caps and plastic dip seal.

YOUR WHOLESALER has Rapid Dehydrators in eight practical sizes: 5 to 200 cu. in.

RAPID DEHYDRATOR KIT

No. 1 help for servicemen...pays for itself. Saves extra trips to supply house. Assures impressively clean packages at installation. Compact, with 18 Rapid Dehydrators in 6 sizes. Sliding drawers for replacement adapters and gaskets. See this practical convenient kit at your Wholesalers. Today!



DESIGN ENGINEERED FOR RUGGED SERVICE



Open-type case installed in restaurant "backwards" to serve as salad case. C. A.

Barnett (in center) is one of the owners of the restaurant.

Men Who Know Grocery, Meat Business Are Good Sources of Commercial Prospects

(Concluded from Preceding Page) blend evenly and smoothly with the dining room walls.

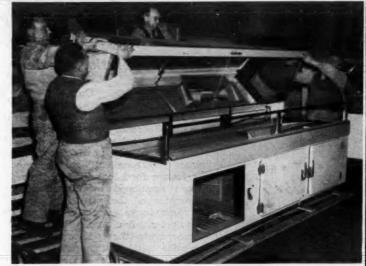
"This case really speeds up service," declared C. A. Barnett, one of the owners of the restaurant, "and the faster the customers are served the better they like it.

"Before we installed this case we couldn't turn out the food fast enough. We also now get better 'portion control,' which is extremely important in our type of business. Portions of salads, shrimp cocktails, fruit juices, etc., can be carefully

prepared ahead of the rush hours during slack times. And at night we don't have to move things into the reach-in. We simply cover the case."

Besides such sales of new equipment, the Jennings organization has done a sizeable volume on reconditioned fixtures. Along with its extensive shop facilities designed for such operations, the firm has a large paint spray booth.

"This also permits us to offer more liberal allowances on trade-ins if necessary, because we are in a better position to realize a profit on used



(ABOVE) Preparing a new McCray cabinet for installation, Garland E. Diemer, Edward L. Diemer, R. M. Patterson, and Clark D. Roach replace the top panel on the superstructure. (RIGHT) For charging service cylinders, the Jennings shop pulls a vacuum on the lines and then pipes the refrigerant from the 145-lb. drums through a cold well shown at top center to provide a quick yet safe operation.

Frank and what A V half which has been de-

equipment," Jennings believes.

"Ordinarily we have a good market for reconditioned items, but this part of our business has been off slightly for the past year," he indicated. "Prospects have apparently been buying new equipment instead."

And as for salesmen, Jennings declares, "I've generally had better luck by getting a grocery salesman, meat salesman, or a meat cutter and then training them to sell our equipment. Such men know many prospects personally and are well acquainted with their problems.

Backing up the sales of new and reconditioned equipment is the firm's large service department ready to handle calls day or night.

One of the features in the shop is the testboard setup for checking expansion valves and controls. Operated by an independent ¼-hp. condensing unit is a cold well at the far end of the bench. This is filled with alcohol and can be set to maintain any temperature between 0° and 32° F. When an expansion valve is connected into the circuit and its bulb inserted in the cold well, it can be quickly checked for superheat and proper seating of the needle.

Thermostatic and pressure controls can also be tested.

"You can make the control cycle 15 times in 15 minutes if you wish to, so that what would ordinarily take days to check on the job can be done here in a few minutes," explains Ed L. Diemer, who is in charge of service and shop.

TESTING MOTOR POWER OUTPUT

At the opposite end of the bench is the motor test equipment, which includes a prony brake. For this test a motor is placed on a mounting plate on the bench beneath a spring scale, as shown in the accompanying photo. A V-belt which has been cut in two is attached to the bottom of the scales and is snubbed against a pulley wheel on the shaft of the

The electrical end of the bench is also fully equipped with voltmeters and ammeters and other test equipment for booth 110 and 220 volts.

UNUSUAL CHARGING SYSTEM

Even the firm's refrigerant charging setup differs somewhat from the average arrangement. Scales, of course, are used to weigh the amount of refrigerant pumped into the service drums, the scales being placed beside the rack containing three inverted 145-lb. drums of "Freon-12," methyl chloride, and sulphur dioxide.

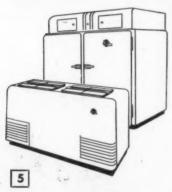
On top of this rack, however, there is a condensing unit which cools a cold well, also located above the rack. Refrigerant lines from the big drums pass through this cold well so that the refrigerant flows into the service cylinders as a liquid. A board mounted on the side of the rack contains three separate hand valves, sight glasses, and driers, one set for each refrigerant.

Before the refrigerant is pumped into the service drums a vacuum is pulled on the drums by a separate vacuum pump.

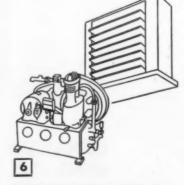
in your pocket!



AT A STARTLINGLY NEW PRICE LINE THAT MEETS EVERY NEED



York Frozen Food Cabinets — hold up to 1,350 lbs. of food with a separate compartment for freezing, Ideal for homes and all types of commercial establishments where larger food storage space is required.



York Condensing Units and Polar Flow Unit Coolers—A complete line ranging from ½ h.p. to 3 h.p. for all types of retail and industrial establishments requiring dependable refrigeration equipment.



York's 2-fold profit-making equipment is only part of the answer...

PROSPECTS. York carries out a continuous direct mail program that creates new prospects daily.

SALES PROMOTION. A year-'round barrage of aggressive sales helps to back up your own sales efforts.

ADVERTISING. National magazine advertising that's read by millions, and professional and business publication advertising that's read by hundreds of thousands, assures instant recognition of York products.

LEADERSHIP. You represent York, headquarters for mechanical cooling since 1885, whose pioneering leadership has contributed many major advances in the industry.

FULL COOPERATION. A capable friendly York Distributor conveniently located to give you 100% cooperation. He is interested in helping you make more profit.

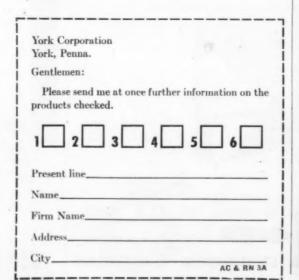
SALES TRAINING. York factory developed and field tested programs give you the latest and best in selling techniques. The famed York Institute of Air Conditioning and Refrigeration is also open to York dealers.

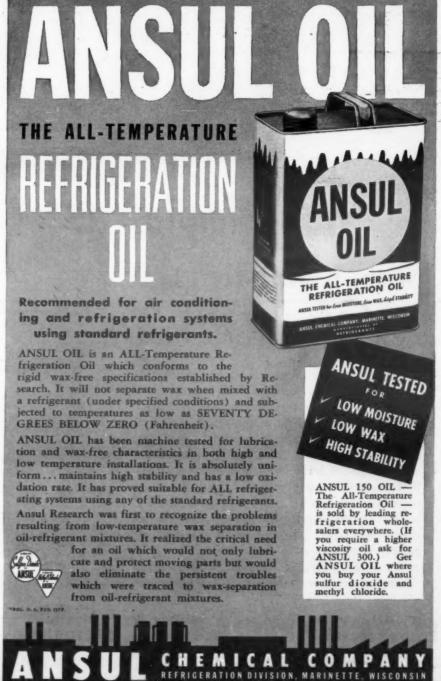
AHEAD OF THE MARKET. York engineering know-how and research assures you continually of products incorporating advanced refinements that are years ahead of the market.

A LINE OF PRODUCTS THAT MEETS EVERY NEED

The York dealer franchise may be available in your neighborhood on one or all of these York products. Check those in which you are interested.

You sell BEST when you sell YORK





"It's a Great Life"

How About You?



Colorado Locker Operator Develops His Plant Into 'Refrigeration Center'

ENGLEWOOD, Colo.—A "refrig-eration center" that includes a bakery specializing in refrigerated whipped cream products, a commercial refrigeration dealer and electrical contractor, and a domestic appliance showroom, all leasing space in a frozen food locker plant here, has been developed by Jim Hartshorn, operator of the plant.

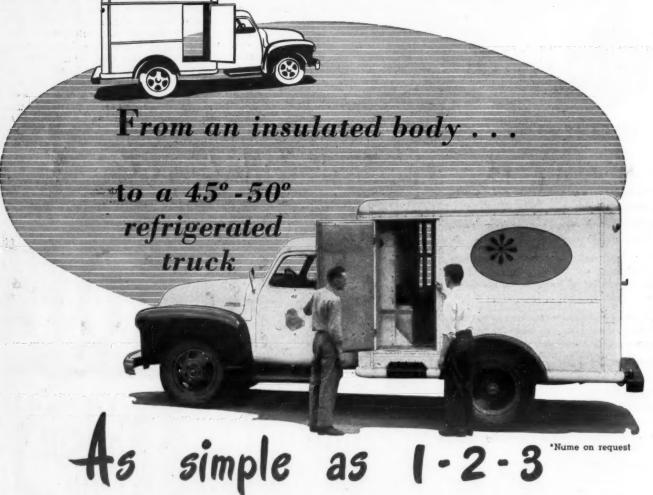
"Our large capacity refrigeration equipment has made it possible to incorporate these lines with better service to the customer," Hartshorn pointed out. "For example, it was easy to install a large walk-in refrigerator in the basement for the bakery, and to provide specialized installation service on commercial refrigeration sales."

Hartshorn has recently completed a new addition to the locker plant that gave him 600 more lockers and permitted him to incorporate the new services.

Hartshorn's plant, called Englewood Frozen Food Lockers, has developed a number of short cuts which make it possible for farm customers in town only for the weekend to be served rapidly.

One such short cut, he said, is attaching an envelope to all meats turned in for processing. The farmer's key is placed in the envelope and the meats—after processing—are routed directly to the locker.

Hartshorn declared that during the last hunting season, the plant advertised heavily for game processing and was rewarded with 700 responses.



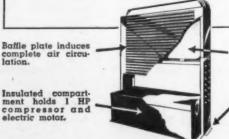
new lakage truck unit

Hi-temperature refrigeration of perishables is achieved quickly, easily and economically through the installation of the new "Pakage" truck unit. This unit is a completely self-contained refrigeration system which you can install (see right) in from two to three hours without special body work, holders or brackets It works well in any properly insulated body, regardless of age . . . and it maintains a 45° to 50° temperature throughout the longest day's deliveries. The unit recharges itself by simply plugging in to any 110V outlet. 220V motor is available if desired. Write for the "Pakage" truck unit bulletin for information.



KOLD-HOLD MANUFACTURING COMPANY

- Cut two holes in the floor of the truck for air intake and discharge. Dimensions and measurements come with the unit, as well as complete installation instructions.
- Push the unit into position over the holes and bolt securely into place. This is all the installation required.
- Plug into 110V outlet. Twenty foot rubber covered cord is supplied with the unit. If desired, a connection box may be installed outside the body for greater convenience.



Strong steel angles drilled for bolting to the truck floor.

Two Kold-Hold "Hold-Over" Plates have 25,800 B.T.U. capacity.

TRANSPORTATION PROCESSING protects every step of the way STORAGE

500 E. HAZEL ST., LANSING 4, MICHIGAN

Open House Guests Sample the Frozen and Unfrozen



Over 12,000 persons visited Detweiler Bros. appliance dealership during a recent open house. In the picture above hostesses, who had entered a pastry baking contest previously sponsored by the store, invited visitors to sample their pastries after they had been stored in a freezer for 60 days. Freshly baked items were on hand so the guests could compare the frozen with the unfrozen.



After the open house was over, Dave Hilty, promotion manager, awarded the 15 hostesses G-E Coffeemakers. Eighteen freezer sales were attributed to this promotion.

Pastry Baking Contest Is First Step In Promotion Which Sold 18 Freezers

TWIN FALLS, Ida.—An unusual home freezer promotion in the form of a pastery baking contest concocted by officials of Detweiler Bros., local appliance dealership, helped lure more than 1,200 people to the store for an open house and led to the sale of 18 freezers.

The stunt was developed as the nucleus of a promotion campaign. It began about a month and a half before the open house with a baking contest, entrants to which were sought through newspaper advertisements.

Sixty-one women answered the advertisements. Of this number, 15 were chosen to bake one piece of pastry each. Entries were wrapped, sealed, and put in a freezer.

The freezer was prominently displayed in the store window, along with a placard which read: "The cakes, pies, cookies, and fresh bread in this unit have been frozen for .. days. They will be thawed and served at the Detweiler Party."

At the same time they were served the pastries by the women who baked them, open-house visitors were also asked to sample fresh pastries purchased from a bakery. They were then asked if they could tell which baked goods had been frozen and which were fresh. Most visitors were unable to tell which was which.

Demonstrations of other appliances

were also conducted.

Detweiler Bros., a General Electric outlet, used newspaper advertising and two daily radio "spots" on each of two local stations, and mailed 4.000 postcards to every telephone owner in the city as publicity.

fe



ASHVE Hears of Heat Transfer Behavior Of 'F-12' In Horizontal Tube Evaporators

Correlations In Temperature Differences Studied

CHICAGO - Tests conducted to study the heat transfer behavior of "Freon-12" in horizontal tube evaporators indicate that a reasonable correlation can be made in terms of the temperature difference between refrigerant and tube wall, weight flow of the refrigerant, and the surface area of the evaporator.

This and other results were brought out at the fifty-fifth annual meeting of the American Society of Heating and Ventilating Engineers here in a paper prepared by Prof. L. G. Seigel, Prof. W. L. Bryan, and M. C. Huppert, all of the Case Institute of Technology to describe experiments sponsored by ASHVE in cooperation with Case.

It was also pointed out that "the presence of oil in 'Freon-12' evaporators does not seem detrimental to heat transfer when the oil is present in quantities such as obtained with ordinary commercial equipment. However, quantitative tests should be run to determine how much oil can be tolerated before the heat transfer is affected."

There is a statement in the paper, though, which declares, "it was found to be difficult to obtain accurate temperature measurements with oil present."

Tests were also run with oil separators in the system, and "after the installation of the oil separator . . . no further difficulty was encountered with the thermometer readings," the paper also states.

In conducting these tests on heat transfer rates a 1-ton reciprocating condensing unit employing a variable speed drive and a water-cooled condenser was used. The evaporators studied were all % in. o.d. copper tubes, and the heat was applied electrically or by means of water.

Conclusions drawn by those who conducted the tests indicate that the heat transfer rate for "Freon-12" evaporating in horizontal tube evaporators may be correlated in the following terms:

(Total heat transferred in B.t.u. per hour) ÷ [(Internal evaporator surface in sq. ft.) x ("Freon-12" flow in lb. per hour)] vs. (Temperature

difference in °F. between tube and refrigerant).

Additional tests, however, should be run using different tube diameters, the authors suggest.

As for the ratios of the heated length of tube to the inside diameter, the authors stated that ratios from 123 to 432 "had no effect on heat transfer." Here again it is suggested that similar data should be obtained for other tube diameters.

Smaller evporator areas, as indicated by shorter tube lengths, gave greater values for

Total heat transferred

Internal surface area of evaporator and the temperature difference between refrigerant and tube, so the experimenters suggest that further studies should be made of still smaller evaporators to determine limiting conditions.

Studies made as to the effect of flash gas entering the evaporators, which ranged from 8.5 to 20%, showed there was "no appreciable effect" when the data was correlated.

L. G. Underhill Is Eastern Representative for Betz

HAMMOND, Ind. - Betz Corp., manufacturer of Filterpure cooling units for commercial refrigeration, has announced the

appointment of L. Underhill as its eastern sales representative.

Underhill's headquarters will be in Plainfield, N. J., from which point he will cover the entire eastern section of the United States. Since his graduation from Pratt Institute in



L. G. Underhill

1924 he has been identified with the refrigeration industry, specializing in low side equipment.

Cross Manages Black, Sivals Branch at Hobbs, N. M.

KANSAS CITY, Mo. - John T. Cross, Jr., has been appointed branch manager for Black, Sivalls & Bryson, Inc. at Hobbs, New Mexico. Prior to receiving this promotion, Cross was connected with company's branch at Odessa, Tex.

Hieatt Engineering Co. To Publish 'Contractors Inventory Service' Listing

LOS ANGELES-A "Contractors Inventory Service" to expedite the disposition of excess inventory by refrigeration contractors has been inaugurated by Hieatt Engineering Co., 2508 W. Sixth St., Los Angeles.

"We don't plan to get rich at putting out this inventory service,' says W. L. Holladay, vice president of Hieatt. "We're doing it for a variety of reasons: we're somewhat overstocked ourselves; we would like to perform a service to the industry; and we like the feeling that we are contributing something of value that isn't costing us much."

The listings will be published about the 25th of each month, according to present plans. They are published on $8\frac{1}{2}$ x 11 three-punched stock.

Listing of standard catalog items may be made for 15 cents per issue; special items requiring some detailed description are listed for \$1 each per issue.

Distribution of the list is without charge to those who make a request for it.

Ice Cream Mfr. Doubles Storage Time By Installing Activated Carbon Units

CHICAGO-Use of activated carbon air purification units to protect ice cream against the infiltration of outside odors has enabled the Goldenrod Ice Cream Co. here to double the former storage time, according to Max F. Halberstadt, who is plant superintendent and production man-

Two air purification units are installed in the plant's cooling room which has a 96,000-cu. ft. capacity and maintains a temperature of -30°

Milk, butter fat, coatings, and other ice cream ingredients are very receptive to foreign odors and hence the danger of flavor contamination is something that must be guarded against at all times, according to Halberstadt.

Because of the low temperatures maintained, the air in the cooling room has lower vapor pressures than the surrounding area. Therefore it is inclined to attract many of the outside odors from the street, and neighboring industrial plants and other sources

Most of the time, however, the room is adequately sealed and the possibility of contamination is present only during the loading periods when the conveyer exits are in open

The activated carbon air recovery units, manufactured by the W. B. Connor Co. of New York City, all have a capacity of 1,500 c.f.m. The total of 3,000 c.f.m. provides about two air turnovers per hour. The units consist of 60 activated carbon-filled canisters, two 1,500 c.f.m. fans, casings, and blast deflectors.

In addition to odor filtration, a further precaution is taken by pressurizing the cooling room. It is the only such ice cream cooling room that is so protected, Halberstadt believes.

REFRIGERATION AIR CONDITIONING **HEATING PARTS** and SUPPLIES

SERVICE THAT'S UNSURPASSED

from the

SUPPLY HOUSE THAT SERVICE BUILT

Dependable efficient same-day filling of orders has built our business ... our reputation. Keep your stocks complete this easy, speedy way . . . just order from our FREE catalog. Saves you time . . . energy . . . money. Prices right. Wholesale only.





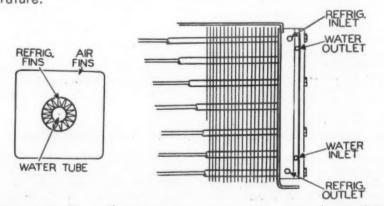
But in addition to effecting substantial reductions in the fabrication costs the new design also brought about material gains in performance efficiencies of the part.

It all resulted from the combining of Wolverine's revolutionary spinning process with Wolverine Trufin—the integral finned tube. In the "old method" the finned tube was of the type that could not be bent on small centers thus producing a shell of larger diameter than necessary. Wolverine Trufin, however, could be coiled on small diam-

eters (without using supporting tools) and effect a reduction in shell size. This accomplished, the new and smaller shell size was easily produced by our spinning process and brought about a reduction in the cost of the shell. Because of the accumulation of the copper shell and copper finned tube in a small space, the total requirement of finned tube surface was less, which further reduced the cost of the entire assembly. The accompanying illustrations tell you most of

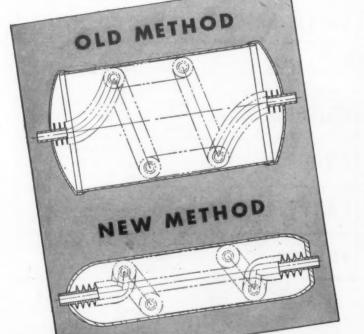


and much goodwill. Cleanable water tubes. Economical to install and operate. Saves space. Readily adaptable. Attractive appearance. Write for literature.



Fins in refrigerant tube transfer heat through many extra square feet of surface. Maximum outside air surfaces provide efficient air cooling. When air temperature reaches 80°F, water valve operates.

THE HEAT-X-CHANGER CO., INC. 415 Lexington Avenue, New York 17, N.Y. Brewster, N.Y.



We invite you to look into the possibilities it has for producing parts for you. Send for booklet.

OLD METHOD

Material:

- 1. Steel tube shell 2. Finned tube
- 3. End cap blanks

Operations:

- 1. Punch holes in shell Punch holes in caps
- 3. Coil finned tube on 41/2" centers
- 4. Center, cut off and strip tails of coil 5. Assemble coil into shell
- 6. Assemble end caps
- 7. Weld caps

NEW METHOD

Material:

- Seamless copper tube
 Finned tube

Operations:

- 1. Punch holes in shell
- Coil finned tube on 2" centers 3. Center, cut off and strip tails of coil
- Assemble coil into shell
- 5. Spin both ends

RESULTS

- 1. Less parts
- 3. No shell joints—less possibility of leakage
- 4. Better gas distribution, more efficient use of available condensing surface
- 5. Durability of copper shell



WOLVERI TUBE DIVISION CONSOLIDATED

1413 CENTRAL AVENUE

DETROIT 9, MICHIGAN



Where Will Industry Find Its Customers In Calcutta Marketing Area of India?

By Eugene Hesz, International Market Analyst

The marketing area of Calcutta partly embraces the enormous delta of the Ganges and Brahmaputra rivers. The eastern part of this delta region was allotted to East Pakistan in the recent division of British India into the two dominions.

The area of Calcutta, seen as a center for American exports, comprises the following provinces of the new Dominion of India:

	THE CAS ASS		
Province or	Square	Popu-	
State	Miles	lation	
Province of			
West Bengal	28,215	21,200,000	
Province of Bihar	69,745	36,340,000	
Province of Assam.	61,881	10,200,000	
Province of			
Orissa & States	50,349	11,752,000	
State of Bhutan	18,000	300,000	
State of Nepal	56,000	5,580,000	
State of Sikkim	2,818	122,000	
Total	287,008	85,494,000	

Also included in the above area should be the states of Burdwan,

Cooch-Behar, Patna, and Tripura which are not of great importance. It should be understood that the State of Nepal (included in the above tabulation) considers itself a political unit outside India.

Most of this area is a low plain, intersected by the two great rivers named above, and their tributaries. Outside the foothills of the Himalaya mountain range, the elevations in the various provinces rise above 5,000 ft. only in a few instances.

The states of Nepal, Sikkim, and Bhutan are located within the foothills of the Himalaya and have a typical mountain formation. Here, the climate is somewhat more tolerable, whereas in the remainder of this vast area, the heat and humidity are very oppressive, especially to non-Indians.

In the lowlands of this region, not only food but all kind of commodities of animal and vegetable origin quickly spoil, and to a degree almost unknown to us. Any raising of the standard of living in the important cities of the Calcutta area must be accompanied by modern refrigeration methods and everything that goes with them.

The languages and religions are so complicated that they cannot even be sketched here. For business purposes, the English language may be

The principal city, Calcutta, which is right in the middle of the hot, tropical climate, has a population of over 2,100,000. Other important marketing points are the cities of Asansol and Khargpur in West Bengal; Patna and Jamshedpur in Bihar; Cuttack in Orissa; and Shillong in Assam.

TRANSPORTATION INADEQUATE

Transportation in this area is inadequate. Even the four railroad lines are suffering from a shortage of equipment. Highways are insufficiently developed and the great traffic on the Ganges and Brahmaputra is carried on with obsolete equipment.

The only modern aspect in the field of transportation is the rapid development in air transportation. Six international airlines connect Calcutta with the world beyond India, and nine national lines connect the city with its own backland, including Pakistan.

This entire part of India is predominantly agricultural, but it also contains several of the leading industrial districts of India. Most of the factories of interest to our industry are found in Calcutta and surrounding districts; several are situated in

Bihar and West Bengal.

The industries in question are: iron and steel, jute manufacturing, foundries and engineering, chemical, cement, and paper production. The

Studying Photos of Installations In Rio

Nanto Junqueira Botelho, a director of Ceibrasil, Baker Refrigeration Corp. distributor in Rio de Janeiro, Brazil, since 1934, and Lillian Keiser, Baker export manager, look over photographs of Baker air conditioning and refrigeration installations made in Rio area by Ceibrasil, which employs 120 people. Botelho visited Baker plants during recent trip to U. S.



region has also a number of plants in the field of sugar refining and soap, glass, ceramics, leather, silk, and match manufacturing.

According to a report of the U. S. Department of Commerce, subdivision of the area for regional representation could very well be arranged by differentiating between West Bengal, Bihar, Orissa, and Assam as one region. Another one could be formed by Cooch-Behar, Burdwan, Tripura, etc. The third subdivision would be formed by Bhutan, Nepal, and Sikkim, with the French possession of Thandernagore and the Islands of Andaman and Nicobar forming the remaining districts.

The principal agricultural crops of this region are rice (total annual production, 15 million tons), various kind of oilseeds (sizeable exports are leaving Calcutta regularly), tobacco (with an annual production of 150,000 tons), and cotton (of which 60,000 bales are produced, a small proportion of India's total).

The marketing area of Calcutta is also the trading center for three additional important agricultural crops, which are harvested partly in the Dominion of India and partly across the eastern border, in Pakistan. They are jute (total production in 1947, 8,500,000 bales or 85% of India's and Pakistan's total), tea (485,000,000 lbs. or 80% of the total), and sugar cane (170,000 tons or 20% of the total).

Apart from the agricultural production and industries, the entire district has a wealth of cattle, with East and West Bengal leading all states and provinces, followed by Bihar. About 25% of India's cattle and 80% of all Indian goats are bred in the region of Calcutta.

All related industries are using Calcutta as their export center. For example, in the six months ended Jan. 1, 1948, 350,000 raw hides and 5,000,000 goat skins were exported from the city.

ONE INDUSTRY MARKET

In this connection, it must be mentioned that this entire area, including the nearby provinces in Pakistan, has huge supplies of fish, opening the possibility of using modern refrigerated transportation to improve the unbalanced food distribution of the country. As mentioned in the introduction of this series, the government of India is sponsoring this project with great foresight and energy.

Mining in the large territory around Calcutta shows diversity and is of very great financial importance for the entire country. All the basic minerals available in the new dominion are found here, some of them leading by far in quality and quantity when compared to the other Indian marketing areas.

Bihar is the richest mining center of India. Just prior to World War II, this province alone was responsible for 40% of the total mineral production of the former British India.

Within Bihar, the leading place is taken by the production of coal, which provides industry with cheap power. The presence of high-grade iron ore has led to the establishment of two large steel plants, one of which is at Jamshedpur in Bihar and the other in Asansol in Bengal.

Near Ghatsila, in Bihar, is the only copper smelting industry in the dominion. The province of Orissa yields 60% of the iron ore mined in India and also limestone, manganese ore, and mica.

In Assam, the leading products are coal, limestone, and petroleum products. Here is the only source of petroleum in India, at present. In 1946, petroleum production amounted to nearly 65 million imperial gallons.

Other minerals produced in commercial quantities in the Calcutta region are chrome ore, clays, kyanite, and steatite, of which only chromite is exported.

The leading industrial trust of India, the Tata Iron & Steel Works is heavily entrenched in Bihar and Orissa, where a great part of their supplies of iron ore and other minerals are obtained. The industrially powerful company is headed by a group of outstanding Indian businessmen of the highest reputation who take a long view of things and operate with modern means of production. They represent a number of outstanding American manufacturers who are exporting American products and know-how to India.

The heavy industries of Bengal and Bihar manufacture just about every conceivable capital and consumer commodity needed in a semi-developed region. Here, electric equipment, electric power, and rubber products form part of the manufacturing program.

In the years just before the last war, the main industries consisted of 100 jute mills, 9 steel mills, 172 engineering firms, 50 sugar mills, 6 paper mills, 17 match factories, 18 chemical plants, 12 glass factories, 12 soap factories, 4 cement mills, and 63 public utilities producing electric current.

At the same time, this district and adjoining Pakistan contained 40 cotton textile mills. The number of persons employed in this marketing region could be estimated at about 450,000, excluding home industries and agricultural labor.

In 1947, the leading exporters to this region have been the United Kingdom and the United States.

DEMAND LARGE, BUT . . .

Considering the fact that the State of Bengal, before being divided, was responsible for nearly 50% of the total export trade of India, and further considering that Calcutta is the great harbor and forms a real metropolis in a tropical climate, the actual demand for supplies from the air conditioning and refrigeration industry is quite evident. This observation applies to every commercial center in this part of the world.

In the district of Calcutta, the mean maximum temperature in 1947 varied from 99° F. in April and May to 79° F. in December. Mean minimum temperatures in the same periods were 80° F. and 57° F., respectively.

Rainfall in 1947 amounted to 67 in. The months of March to November are exceedingly hot and humid, only the three remaining winter months having a bearable climate. It is estimated that Calcutta, including all industrial suburban districts, contains 4 million persons, of which only 20,000 are Europeans. There are about 1,300 Americans settled in greater Calcutta.

It is quite clear from the foregoing, and has been confirmed by U. S. Government officials, that the actual demand for the products of our industry is very large. Nevertheless, it must be remembered that the standard of living of the masses in this region is still incredibly low: the working man earns an average of from \$3.75 up to \$30.60 per month.

It becomes quite obvious, therefore, that our customers will be found among the Americans and Europeans in India, among the upper classes of the Indian population and, foremost in those industries working under tropical conditions, often employing partly modern production methods and producing commodities which to a certain extent make air conditioning essential.

Carrier Outfits New Whaler

NEW YORK CITY—The Thorshovdi, new Norwegian whaling vessel, was fitted out with Carrier Corp. refrigeration equipment after getting underway on her maiden voyage.

This was made possible, Carrier explained, because whaling ships have complete machine shops, and the equipment was installed by the Thorshovdi's own mechanics. The contract was handled by E. T. Anderson, Carrier's representative in Norway.



Reaction to 'Frozen Custard' Article:

Local Law, Not Personal Preference, Determines Percentage of Overrun

Editor's Note: In an article headlined "Frozen Custard" in the March 14 issue of AIR CONDITIONING & REFRIGERATION NEWS, Tom Carvel of Carvel Corp. declared that there is "great confusion" over the meaning of "frozen custard" and offered the following definition of the product:

"A good dairy mix with approximately 38% total solids, one-half of 1% egg yolks, preferably fresh eggs, frozen in a fast-freezing, continuous-type freezer. The total freezing and whipping time not to exceed one

minute from the time it enters the cylinder to the time it is ejected and expelled at 18° with a maximum overrun of 50%, hard enough to form on a cone or sundae. However, most any dairy mix treated in this manner produces a good product."

Sharp issue with Carvel's definition has been taken by Charlie Shaw of Tekni-Craft, Beloit, Wis., who offers the following comments, based upon "26 years of experience, and the sale of more freezers for frozen custard than all other freezers (including continuous) combined."

Tekni-Craft Beloit, Wis.

Editor:

I was rather surprised to see your item on frozen custard on page 15 of your March 14 issue, as it is not strictly in accordance with facts.

First, of course, a warning on a point that is only touched upon in Mr. Carvel's article: Frozen custard is whatever it is defined as in the particular State in which it is produced and served! This is extremely important, because many people have bought continuous freezers to serve a product they later found out was illegal.

Any operator simply MUST meet the laws of his State. The fact that this makes frozen custard differ from state to state is immaterial. Ice cream differs also: butterfat content may range from 8 to 14% and apparently it doesn't bother anyone.

If confusion exists, the fault is not (as Mr. Carvel claims) with counter freezers. If you have ever tasted the stuff served from continuous freezers at carnivals and fairs, you will know that the continuous freezer is more to blame than anything else.

It is not true that frozen custard must be served at 18° or lower. It is true that it has greatest appeal when served "cold and stiff," but this is a matter of appearance and taste rather than of a reading from a thermometer.

Mixes will cause a great deal of difference. One mix frozen to 21° may seem just as cold and stiff as another frozen to 18°—and for that mix 21° is right!

Overrun, too, will vary with different mixes, and with the same mix it will vary with temperature. In other words, temperature governs overrun. Nearly every mix has a temperature at which it will attain 100% overrun (usually somewhere from 26 to 24°)

Sell the name that sells itself,... with Kelvinator-refrigerated Electric Water Coolers. Sizes and models for every requirement. Write.

—and every decrease in temperature will cause a corresponding decrease in overrun.

In other words, if an operator wants to serve a product at 20 or 19°, he must accept the overrun possible with that mix at that temperature, and there is little he can do to change it.

Mr. Carvel objects to high overrun, and wants it held down to 50% for a very good reason: he wants to promote the sale of products that have very little butterfat content; and with a low butterfat content, you can't have a good smooth product unless you keep overrun down. This objection disappears when the butterfat content is raised.

In Wisconsin, frozen custard must have a butterfat content of 13% (the same as vanilla ice cream). This product may be drawn from the freezer with 100% overrun, put into a hardening cabinet at minus ten, and hardened into a brick the same as a package of ice cream. It will not be coarse, grainy, and crystallized. And it IS frozen custard according to the Wisconsin law.

Our new freezers have been especially designed to eject a cold, stiff frozen custard direct from the freezer. They will do that, and we will demonstrate it. We recommend a temperature of 20° or thereabouts, but can draw it off at a lower temperature when desirable. However, there are very few mixes that require a lower temperature.

As you check Mr. Carvel's article, I am sure you will notice that it is a poorly disguised attempt to say that no freezer except a continuous freezer should be used to make frozen custard—and that instead of defining frozen custard, he has simply told what he would like it to be defined as, even going so far as to tell what kind of freezer should be used.

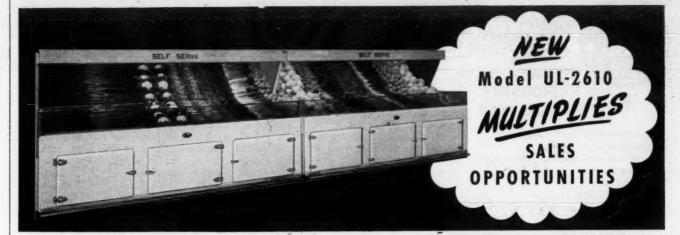
Another point is that articles like this, which slide over the vital fact that people must comply with state laws or be prosecuted, do not eliminate any confusion.

CHARLIE SHAW

Cooling Course Opens March 28

RALEIGH, N. C.—A 10-week course in air conditioning will open at North Carolina State college on Monday, March 28, according to Paul E. Picket, assistant director of the college's Extension Division.





For Single or Continuous Display of Dairy Products, Produce or Meats

Small, medium or large stores—all are prospects for the Sherer Model UL-2610 Self Serve Display. You can sell it singly or in multiples of two, three or more for display of dairy products, produce, or meats. Well-known Sherer quality plus ten outstanding features make UL-2610's easy to sell . . .

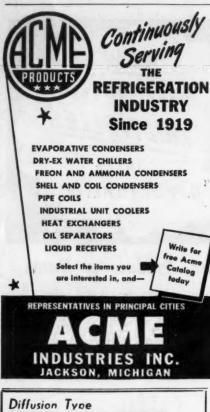
a repeat sales builder . . . and the biggest value your customers' money can buy. Multiply the sales opportunities of UL-2610 by the 39 other nationally advertised Sherer models of all types and sizes and see why a Sherer franchise will build your volume, profit and reputation.



THE MASTER SERVICE MANUALS - - -

— — — and other books of the Refrigeration Library are depended upon as textbooks in trade schools from coast to coast. BUSINESS NEWS PUBLISHING CO., DETROIT







For low-pressure steam and hot water

Wall and Ceiling
Unit Coolers

For all above-freezing applications
CATALOG ON REQUEST
AMEDICALANT OF WANK CO

MERCHANT & EVANS CO. PHILA. 46, PA.



JAS. P. MARSH CORP.

Ad Urges Public To Trade In Older Refrigerators If Warranty's Expired

NEW YORK CITY—A direct appeal to owners of refrigerators that are five years old or older, reminding them that the guarantee on their unit has expired and that they will save money by trading it in on a new model, was made recently in a large newspaper advertisement inserted in the New York *Times* by the General Electric Supply Corp. here.

"If your refrigerator is five years old, your guarantee has expired," the advertisement asserted. "But you can still cash in on it—Big Allowance with purchase of new 1949 Hotpoint Refrigerator."

The copy continued: "Older refrigerators—that are no longer guaranteed—are the ones that need repairs! YOU have to pay for any repairs that may be needed—often up to \$100.00!

"More old refrigerators go bad in summer, when overworked—trade yours in for a new Hotpoint before the hot weather comes—and take advantage of big cash allowance! Applies to brand new big Model EB6-3 or any other model in the line."

The copy goes on to outline the advantages of the new models and ends by pointing out: "Government now allows new, easier terms, smaller down payments! Up to 21 months to pay!"

John Millar Takes Over Proctor Electric Sheet Metal Division

PHILADELPHIA—A. H. Caesar, vice president in charge of production, Proctor Electric Co., announces the appointment of his assistant, John Millar, as manager of the newly established Sheet Metal Division of the company.

Millar will be in charge of a new plant which the company will open shortly near Baltimore to produce an adjustable, all-steel ironing board, an ew Proctor product. The new plant comprises 50,000 sq. ft. of working area and will be located in Arbutus, Md.

VERTICAL FREEZERS

Write for more information and prices on Benbar

products. Distributorships available!

AUGUST G. BARKOW

MANUFACTURING CO.

2723 S. 31st Street . Milwaukee 7, Wisconsin

Drop In Sales by Independent Dealers Follows General Trend

WASHINGTON, D. C.—Retail sales by independent radio and household appliance dealers for January were 5% below a year ago and 42% below December, 1948, the U.S. Bureau of the Census has reported.

This compared with a general trade decline among independent retailers of 5% under a year ago and 38% under December.

Booklet Outlines Steps In Setting Up Program For Training Salesmen

NEW YORK CITY—"Training Salesmen," a report to provide executives with practical assistance in reviewing or developing sales training, has been published by the Metropolitan Life Insurance Co. here.

The report is based on findings of a survey of selected companies with progressive sales training programs. The survey was made by the Policyholders Service Bureau of the company in cooperation with the National Federation of Sales Executives and the National Society of Sales Training Executives.

Included is information on the following subjects:

The set-up of successful sales training organizations; the development of a training program; how to keep the program practical; how to present the program; training methods available; size of the training group; training aids; outlines and guides for conference leaders; and training facilities.

Also included are charts showing the training organizations of several companies; job descriptions of sales personnel and training representatives; and sales training program outlines of several selected companies.

Executives who would like to see this report may obtain a copy by writing to the bureau on the business letterhead. Address: Policyholders Service Bureau, Metropolitan Life Insurance Co., 1 Madison Ave., New York.

Norge Field Staff Learns How To Conduct Appliance Demonstrations In Home

NEWARK, N. J. — Forty-seven home appliance instructors convened recently at the auditorium of Krich-Radisco, Inc., here, northern New Jersey distributor of Norge home appliances, for an intensive two-day course in demonstrating Norge products.

The training course was in preparation for the new Norge free home demonstration plan, in which free instruction in the consumer's home is given to any purchaser of a Norge product. These factory trained women are now in the field giving instruction on all Norge products.

The training course was officially opened by Andrew K. Leach, vice president in charge of the Norge division and supervised by Miss Dorothy Covert, home service director of Krich-Radisco.

Highlight of the program was a simulated home instruction given by Miss Covert in which she took every phase of each Norge product and explained its workings and proper use to the housewife.

Guest speakers were Mrs. Helen Robbins of Rutgers university, and Mrs. Anna May Hall, home service supervisor of the Elizabethtown Gas Co.

Easy Co. of Canada Elects New President, Chairman of Board

TORONTO, Ont., Can.—At the annual meeting of Easy Washing Machine Co., Ltd., J. R. Berkinshaw was elected chairman of the board. Replacing Berkinshaw as president is S. J. Randall, who also continues as general manager. C. H. Legg was named vice president and continues as secretary-treasurer.

Park Appliances Opens In East

BUFFALO—A business name has been filed in the Eric County clerk's office for Park Appliances, 15 Walden Ave. here.

TELLING and SELLING A GUIDE TO SMART ADVERTISING AND

This series of articles comprising ideas and principles for the small retail or manufacturing business is written by James D. Woolf, who was for more than 20 years a vice president and director of J. Walter Thompson Co., one of the largest advertising agencies. Out of his experience embracing all types of advertising and merchandising hebrings his counsel to the small businessman who must plan his own advertising and promotional efforts.

MERCHANDISING PRACTICES

By James D. Woolf

Prodding Them Into Action

Human inertia is probably the advertiser's toughest hurdle.

Think of the many advertised products you have *intended* to buy, but somehow never did.

If the buying intentions of the public were suddenly crystallized into sales, advertisers would be overwhelmed with more business than

they could take care of.

For example, there must be hundreds of thousands of persons who, at one time or another, have resolved to buy a set of Encyclopaedia Brittanica, but human inertia has blocked the road to action.

Prodding people to buy is hardest when the product (or service) is one they can easily do without. In the case



of "must" products, such as sugar and salt and razor blades, the consumer's need will eventually drive him into a store.

But when the product is one for which the consumer feels no pressing need, devices to prod him into action are urgently necessary. One of the most useful of such devices is pointof-sale reminders.

MAKING THEM REMEMBER

An old colleague of mine, the late S. Roland Hall, once said in one of his fine textbooks: "There is a great deal going on in the world and your business is just part of it . . . if you expect to be remembered and to have people act on your message, you must make it convenient for them to do so."

Recently a sporting goods merchant I know ran a half-page newspaper advertisement on guns, shells, and other items of hunting equipment. During that week his window display was made up exclusively of footballs, basketballs, skates, skis, and other articles for fall and winter sports.

Another advertiser, a laundryman, advertised in a quarter-page newspaper advertisement what he called a "Get-Acquainted Trial Offer"—he would iron two shirts and a blouse or dress out of each bundle of "rough dry" free of charge, as a sample of his skill.

My wife phoned to the laundry, indicating her interest. The girl who answered the call knew nothing about the offer. Worse, I found upon inquiry that, unbelievably, the laundryman had neglected to inform his drivers of the offer.

So many merchants fail to understand the importance of planning a thoroughly rounded-out promotion.

PULL ALL THE STOPS

A California bottler added a new drink to his line—a distinctive cola drink concocted according to his own recipe. When he introduced the drink in his area of several counties he pulled all the stops.

A series of newspaper advertisements was only one of his moves. Each of his delivery trucks was bedecked with a huge banner whooping up his new taste treat. Thousands of airborne leaflets fluttered from the sky. Display cards and streamers were conspicuous in retail outlets.

Not only his truck drivers, but every employe down to the janitor was briefed on what was going on. A barrage of 30-second radio spots also played in making it nearly impossible for the consumer to forget.

This sort of all-out procedure, covering all the bases, is standard practice with the aggressive national ad-

vertiser. But too few local advertisers make skilled use of its power.

You have just received a big shipment of, say, office desks, or automobile seat covers, or an improved type of poultry feed. You think it might be a good idea to run two or three advertisements in the paper.

What you hope for is action. You want your advertisements to do more than create interest and buying intentions. Okay. Here's the thing to do: think of those advertisements as merely one unit in a rounded-out action-prodding campaign.

Display the advertised merchandise in your windows and also well up front in the store. Mount proofs of the advertisements on heavy cardboard and display them both in your windows and on your counters. Brief your clerks and your delivery boys. Display signs on your trucks.

Post a brief notice on your switchboard so that your telephone operator can inform those customers who telephone in. If you are aiming at a limited selective market, use your telephone, send out letters, or even a penny mimeographed postcard.

Space and radio advertising, when unsupported by devices and strategems to combat human inertia and forgetfulness, is bally handicapped.

I am a strong believer of point-ofsale advertising material. I have no facts to support my opinion, but I have a hunch that the Coca-Cola point-of-sale-signs—and there must be millions of them!—do more to stimulate sales than full-color pages and covers in the big magazines.

HABIT A SALES BLOCK

A frequent obstacle to buying action is just plain habit. The housewife, for example, who has all her life done her cooking without the aid



of an electric mixer is likely to be "set in her ways." Seeing no crying need for the device, she hasn't much confidence in it. At best, the mixer will be classified in her mind as something she will look into some day when she "gets around to it."

An appliance dealer I know, heavily overstocked with electric mixers, cleaned them out with this offer: "Use it every day for a whole month at my risk. If you are not completely delighted, your money will be refunded."

This advertises know that once he

This advertiser knew that once he had the mixer in the housewife's kitchen, the chances were a hundred to one that it would stay there. And he was right: out went the old habit, in came the new.

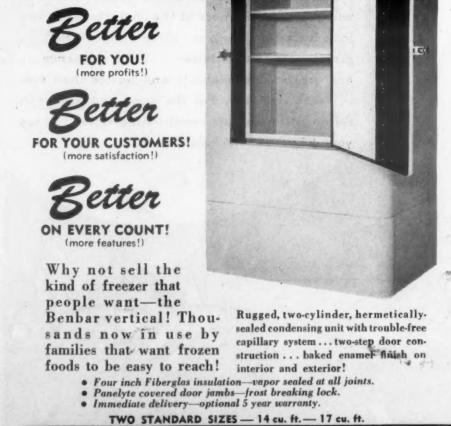
BETTER BLOWERS

by USAIRCE

ANY TYPE
ANY SIZE

PROMPT
DELIVERY
WRITE FOR
CATALOG

UNITED STATES AIR CONDITIONING CORPORATION Como Ave. S.E. at 33rd • Minneapolis 14, Minnesota



Write for complete in-

formation and prices

on the Benbar Vertical

Food Freezer and Ben-

bar cabinets, coolers,

and horizontal models!

J. S. McElwain Gets Post With Avery Engineering

CLEVELAND—John S. McElwain, former Chicago representative of Lemco Products Co., has been appointed sales manager of the merchandise department of Avery Engineering Co., Lester T. Avery, president, has announced. His duties will include the general supervision of retail sales in the main office here and in the branch offices in Co'umbus, Toledo, and Akron. He is a graduate of the University of Virginia and served five years with the armed forces.

Cool Drinks on the House Help Hinky-Dinky Mkts. Sell Slow Movers

OMAHA, Neb. — Self-contained electric water coolers which have been installed in 15 Hinky-Dinky supermarkets here, have aided materially in selling slow-moving food items, according to the management of the food chain which has head-quarters here.

Merchandising on which the turnover is not as fast as the management thinks it should be, is displayed next to the water coolers and the shoppers notice the items when they pause for a drink, especially during the summer months, it was explained.

At the Hinky-Dinky supermarket No. 26, 1325 Park Ave., the water cooler has been located near the self-service meat department. The management has found that it helps draw customers to this new department and exposes them to the displays of meat in self-service refrigerated cases.

At Hinky-Dinky supermarket No. 15, manager Robert A. Nichols last summer greatly increased the sales of watermelons and cantaloupes by displaying the melons next to the water cooler. It also worked last winter for dried fruits, which are a long-profit item.



ROOMS

CAPACITIES FROM 300-5,400 GALS.

RECO-FAB Hardening and Freezing Rooms are

RECO-FAB Hardening and Freezing Rooms are shipped complete with all required Refrigerating Equipment and complete assembly Instructions. All equipment bears our standard one year Manufacturer's Warranty.

SIMPLE TO ERECT, MOVE OR ENLARGE

RECO PRODUCTS DIVISION 2020 Naudain Street, Phila. 46, Pa.

New I-C All-Electric Dining Car Features 9 Refrigeration Units, Air Cooling Systems

CHICAGO — Nine refrigeration units and an air conditioning system are among features of a new all-electric dining car recently unveiled by Illinois Central Railroad.

The diner is the first of its type to be built for revenue service on any American railroad, according to Illinois Central. It is the joint product of General Electric Co. and the mechanical and dining service departments of the railroad.

Refrigeration equipment includes a food-storage refrigerator, a counter and fish refrigerator, a frozen food refrigerator, an ice-cube storage refrigerator, a counter and cold-pan refrigerator, an ice cream refrigerator, a fruit refrigerator, a beverage refrigerator, and an ice maker.

The food storage refrigerator has a capacity of 300 pounds and is used for the storage of meats. The counter and fish refrigerator is used for storing fish, sauces, and gravies, and has a capacity of 75 pounds. Temperatures in these units are maintained at 35°.

Temperatures between 0 and 5° are maintained by the frozen food refrigerator, which has a capacity of 75 pounds. The ice-cube storage refrigerator is operated at about 20° and will hold 1.500 ice cubes

Salads, cocktails, milk, cream, and butter are kept in the counter and cold-pan refrigerator, in which the temperature is around 38°. The 5-gal. ice-cream storage refrigerator is operated at 10°.

A 17-cu. ft. fruit storage refrigerator keeps oranges, lemons, grapefruit, fresh vegetables, etc., at a temperature of about 38°. Beverages are stored in a special refrigerator and likewise are kept at 38°. The ice maker is capable of making 21 trays, or 588 ice cubes, every 96 minutes.

The diner is provided with the latest Frigidaire air conditioning equipment. In addition, five Ilgair exhaust fans installed in the ceiling draw cooking odors out of the kitchen.

Power (approximately 50,000 watts) is supplied by two dieseldriven generators housed beneath the car. The exhaust from the two engines heats water used on the car, this system supplementing heat available from the train steam line. There is also a 10-gal. electric hot-water heater to assist in boosting water temperature.

Should it be impossible to operate

Bally Promotion Piece Tells Story of Company

BALLY, Pa.—A promotion piece designed to "tell all" about the company, its products, and its merchandising aids, is now being circulated by Bally Case & Cooler Co. here.

First part of the large piece is devoted to a picture story on the company's manufacturing facilities. Center spread has two "pockets" which are filled with individual literature sheets describing the display cases, reach-in coolers, fish and poultry cases, and bottle coolers made by the firm.

Latter part of the piece depicts the advertising and promotion helps which are made available to dealers.



Cold storage food compartment in the new I-C all-electric diner.

either engine, the battery can supply power to seven of the refrigerators as well as to the coffee urn, hall and vestibule lights, and half the dining room lights.

The kitchen is 17 ft. long and 7 ft. wide, with 54 sq. ft. of standing area. It is an adaptation of the electric galley developed for the U. S. Navy for cooking on submarines.

Besides the equipment mentioned, the stainless steel kitchen includes such other items as heavy-duty electric ranges, automatic electric broilers, bake ovens, deep-fry kettles, a garbage disposal unit, electric dishwasher, grills, and griddles.



Factory & Main Office

1042 Dean Street, Brooklyn 16, New York



Freon or Sulphur Dioxide.

PEERLESS of AMERICA,

Send for Circulars Giving Details and Prices

2901 Lawrence Ave. Chicago 25, Illinois, U.S.A.



New Morrison Steel Products Financing Plan Spending \$600 To Convert Standard Liquor Cases Offers Banks Protection on Loans to Dealers Into 'Display Refrigerators' Boosts Sales Volume

BUFFALO-A new financing plan intended to aid its retailers in making quantity purchases of its products and strengthening the dealer's credit position has been announced by Morrison Steel Products, Inc. here, steel furnace manufacturer.

Called the Mor-Sun Plan, the proposal includes a repurchase agreement which guarantees local banks against losses resulting from the extension of credit to a Morrison merchandiser on his purchase of Morrison products.

Full and complete protection is given the bank by the Mor-Sun Plan throughout the entire life of the contract. No special handling is necessary, and standard floor plan procedure may be used.

The plan places local financing in the hands of the local bank on a risk-free basis. Participation in this program does not obligate a bank to extend credit to any and all Morrison merchandisers, but leaves the bank free to exercise its discretion.

Details of the Mor-Sun Plan are

George Klahn Represents McQuay In 6 States

MINNEAPOLIS - H. Blake Thomas, general sales manager, McQuay, has announced that George Klahn is now representing McQuay, Inc., in the states of Minnesota, North Dakota, South Dakota, Nebraska, Iowa, and western Wisconsin.

outlined in a 20-page brochure which is being forwarded to Morrison merchandisers, their local banks, and all other interested parties.

The most unusual feature of the Mor-Sun Plan is the repurchase agreement. This agreement provides for the repurchasing of Morrison products from the bank by Morrison Steel Products, Inc., in the event of default by the merchandiser.

As long as the merchandise is new and undamaged, it guarantees full payment to the bank of the unpaid balance of the loan, provided the loan was made in compliance with the terms of the agreement.

"Although the primary purpose of the plan is to enable merchandisers to benefit from the economy of large scale purchasing, both the merchandiser and his bank will derive certain other advantages," the manufacturer said.

"The merchandiser is now able to expand his business operations without increasing his capital investment. He is able to take advantage of favorable price conditions to purchase, at one time, the merchandise which he otherwise would buy over a period of months.

'Such large scale purchases will likely mean extra sales, for oftentimes a sale hinges on whether or not the merchandiser can make immediate delivery on a particular model or size. And the establishment of sound credit with his bank facilitates the financing of other lines which the merchandiser carries.'



Refrigerated display cases after their conversion from ordinary standard

Cordley & Hayes Appoints A. U. V. Distributors In N. Y.

NEW YORK CITY-C. M. Cordley, president of Cordley & Hayes, has announced the appointment of A.U.V. Distributors as a metropolitan distributor of Cordley electric water coolers.

Principals of the distributorship are W. T. Rhame, G. J. Condos, and R. B. Garcelon, the announcement further stated.

Neb. Dairymen Hear Need For 'Grade A' Equipment

LINCOLN, Neb .- More than 100 dairymen from Nebraska and surrounding states were told that better quality milk is here to stay and that they must produce Grade A milk if they are to stay in business, at the annual dairy industry conference held recently at the University of Nebraska.

T. A. Filipi, director of the Nebraska health department, said people generally are no longer satisfied with inferior dairy products and want the

Refrigeration and other equipment needed to produce Grade A milk is paying for itself in about one year's time on many farms through the premium price paid on the market for higher quality product, he reminded the dairymen.

The speaker stated, however, many Nebraska communities still receive inferior milk. He cited a survey made by his department recently in which it was found that only two towns with populations under 500 had pasteurizing plants.

Dairymen in the small towns, he continued, are "losing out" because they are not competing with larger plants that deliver top quality milk. Much of the milk in the small towns is shipped in from large producers.

Reach-In, Walk-In Fixtures **Supplement Rebuilt Facilities**

DENVER-Spending \$600 to convert standard glass display cases into "display refrigerators" has proven a wise investment for Mrs. F. E. Feld, proprietor of Santa Fe Liquors, at 8th and Santa Fe, here.

An 8-ft. display case, facing the entrance to the store, was transformed into a display refrigerator to catch the attention of entering customers.

To convert the case, it was first provided with a double thickness of Thermopane glass and the woodwork around the bottom and sides heavily insulated.

Four cooling coils of the fin-type were installed, two at the top and two at the bottom of the case, operated by a %-hp. condensing unit, which is located in the basement of the store.

With thermostatic controls set at 32° F., the case will accommodate 25 cases of beer, which are kept at near-freezing temperature for a frosty appearance, which substantially increased beer sales.

"Almost everyone who enters the store asks us whether the case is refrigerated," Mrs. Feld smiled, which, of course, always gives us an opportunity to point out that we keep large amounts of chilled beer on hand at all times."

Going farther, Mrs. Feld has also spent \$1,100 for a 10 by 8-ft. walk-in refrigerator, immediately behind the display case, which will accommodate another 60 cases of beer, plus 10 cases of wine.

Two reach-in doors are provided at the front of the walk-in refrigerator. opening to four levels of shelving immediately behind. The shelving is stocked with beer and wine from the inside of the box.

Temperature along the shelving is from 35 to 40° F., ideal for chilling wines, according to Mrs. Feld, while at the rear, where larger coil area is provided, the temperature drops to between 32 and 35° F. for chilling

"There is a definite demand for chilled wine," Mrs. Feld said, "which the large refrigerator meets. Both our beer and wine sales have been increased tremendously through this installation.'





These Will Make Some Diner Happy



Lopatin (r.), Washington restaurant operator, finds that using a home freezer instead of a walk-in cooler, solves many of his meat problems.

Shipments of Non-Electric Ranges Down In January

WASHINGTON, D. C .- Shipments of domestic non-electric cooking stoves and ranges in January totaled 136.321 units valued at \$10,370,366, the U.S. Bureau of the Census reported recently.

This compared with December shipments of 175,615 units valued at \$14,041,665. Unfilled orders for these units was placed at 149,321 at the end of January as compared with 219,165 at the end of December.

Gas ranges accounted for 102,275 units of the January total, the statistics showed.



A ONE MAN HAND OPERATED LOADER!

Models from \$80.00

- 50% Savings in Labor.
- Load Capacity 600 lbs.
- Fits Any Pick-up Truck
- Easily Installed.

In the West See Your Local Truck Dealer.



Freezer Cuts Meat Bill

WASHINGTON, D. C .- Savings of 10% on his meat bill are attributed to a General Electric home freezer by Burt Lopatin who operates Burt's Trans-Lux Restaurant here.

10% for Restaurant Owner

According to Lopatin, this saving is achieved through elimination of meat wastage and spoilage. When meat and fowl is purchased, it is cut, wrapped, and placed in the freezer, each package containing just enough for an individual serving.

In this way, Lopatin feels he can better control the size of the portions prepared by his chef and eliminate the possibility of spoilage.

Prior to purchase of the freezer, Lopatin used a walk-in refrigerator for storage of such meats as steaks. He points out, however, that his cooks were accustomed to placing newly delivered meat on top of the pile and that older cuts were, therefore, not used first, causing some spoilage.

The freezer reduces this possibility. In addition, meats stored in the freezer are much tastier since all their natural juices are retained, he

Lopatin selected an 8-cu. ft. home freezer in preference to larger commercial sizes because of the unit's sealed mechanism and cabinet. In addition, he feels it is undesirable to

purchase foods too far in advance. Tangible proof of the value of the sealed cabinet was furnished some time ago when a fire in the restaurant's basement damaged all the food in the walk-in refrigerator. Food stored in the freezer, was not affected, even though the appliance itself was partially submerged. The freezer ran perfectly when power was restored, he declared.

Proctor Promotes Tiers

NEW YORK CITY-Promotion of Joseph Tiers to sales manager for distributor sales, in charge of distributor and dealer field activities, has been announced by Walter M. Schwartz.

> maintains even Evaporator

Temperature

Prospects Deluge Dealer Offering To Give Away Freezer—And Meats, Too

DETROIT-Offering to give away a Bishop home freezer along with 100 lbs. of beef, 50 lbs. of pork, and 50 packages of frozen food at the recent local Builder's Show brought a response beyond the fondest dreams of Charles Landrith of Refrigerated Locker Storage of Detroit.

Landrith, who took a small booth at the last minute, distributed 25,000 tickets on the drawing right from the booth. He said that he had originally and 10,000 printed, but these moved so rapidly that he had to order another 10,000 and then another 5,000. At that point he decided to call it

In addition, he said that he had interviewed 150 "hot" prospects during the first week of the 10-day show and confidently expected to close at least 50 home freezer sales.

Landrith, whose main business is operating a locker plant here, sparked the interest of booth visitors by announcing that he can obtain for home freezer owners 10% discount on orders of \$15 of frozen foods or

He also issued a price list to interested prospects on quantity purchases of beef. The list pointed out, for instance, that they can get a side of grade "AA" beef at 46 cents per lb. plus a service charge of 5 cents per lb. for processing and freezing.

Landrith expects to dig more prospects out of the 25,000 tickets he has distributed. Each ticket entered in the drawing contains the name, address, and telephone number of the contestant.

It also contains lines on which the contestant was to answer questions on whether he owns a freezer or contemplated buying one in the near future. Space is also provided for the size of unit the contestant is interested in and whether he buys in quantity to take advantage of low prices.

If nothing else, Landrith feels, 25,000 persons can no longer say they have never heard of a Bishop freezer.

Orley-Detroit Co. Formed To Cover Mich., No. Ohio

DETROIT-Formation of the Orley-Detroit Co. to handle distribution of Orley home freezers and refrigerators in the Michigan and northern Ohio territory has been announced here.

Lawrence A. Johnson, formerly sales manager of the Bendix home laundry division of Buhl Sons Co., has been named general manager.

They Liked Steinhorst's Sales Plans



Emil Steinhorst & Sons, Inc. played host a short time ago to its distributors and dealers from the northeastern states. Sales promotion plans for the coming year were discussed, and the guests watched production of Steinhorst freezers and milk coolers. In the group above are H. F. Pfaff, Belvidere, N. J. dealer; Russell Inscho, Belvidere, N. J.; Jake Fisher, Elizabethtown, Pa. dealer; Dan Sweeney, Springfield, Mass. sales representative; Stan Talbot, Haddonfield, N. J., distributor for New Jersey and Long Island.

Bakelite Plastic Adapts

NEW YORK CITY-A comparatively new plastic, polyethylene, that is so adaptable to temperature extremes that it can be washed in hot water or stored in a home freezer, is being used to make kitchen cannister sets, the New York Times reported recently.

Other features of the plastic, which was devised by Bakelite and adapted to cannister manufacture by the Tupper Corp., are its flexibility, light weight, lack of odor, and spillproof qualities that retain liquids even though the cannister is tipped over.

Bigger Appliance Dept. Opened

MONTGOMERY, Ala. - Frank Tennile Furniture Co.'s enlarged electrical appliance department was formally opened to the public March 7. According to John Andrews, manager, Westinghouse and General Electric products will be featured.

Appliance Dealer Helps Self to Heat, Cold Extremes Amateurs Build Tele Sets

LOS ANGELES-A work room for home mechanics who want to build their own television sets has been established by the Sampson Electric Co. here as part of a public relations campaign designed to boost appliance

Sampson Weinshenk, president of the firm, said that his idea presages a return to the early days of radio when every amateur was building a crystal receiver.

He claims that providing the facilities with which television enthusiasts can make their own sets has paid off in attracting more people to his showrooms. In this way, they get a good chance to look over all the appliances on display while waiting their turn to work at the "television

The Sampson company is also developing various television devices and making its findings available to the entertainment trades

Maximum EFFICIENCY • Minimum ATTENTION



Precision manufacture gives Larkin refrigeration products life-time top performance and lasting fortitude. Made by the originators of the patented Cross Fin Coil, Larkin is the recognized leader in precision manufacture of Larkin Humi-Temp Forced Convection Units - Bare Tube and Zinc Fused Steel Plate Coils — Air Con

ditioning Units — Instantaneous Water Coolers — Evaporative Condensers — and all other equipment factors used in dependable commercial and industrial refrigeration.

WATCH DOG OF THE

519 MEMORIAL DRIVE . S.E. ATLANTA . GEORGIA

Attention Distributors and Dealers

A FEW OPEN ITORIES ARE AVAILABLE FOR

HOME AND FARM

FREEZERS A Stainless Steel Freezer

For The Price of Enamel

AMERICA'S FINEST FREEZER

Steel frame construction, fiber glass insulation -quick freeze and storage compartments. Available in 12-18-25-30 cubic foot sizes. Truly America's Most Beautiful and Finest Constructed Freezer on the market. Write or Wire.





BEATTY

Manufacturing Company 1216 METROPOLITAN ST. PITTSBURGH 12, PA.

SCHNACKE COMPRESSORS AND CONDENSING UNITS Now Available with THERMATROL CAPACITY CONTROL 1-Improves Refrigeration System Efficiency 2-Eliminates Unnecessary Cycling 3 - Reduces Electric THERMATROL

Current Consumption These are some of the "plus" advantages now available in all SCHNACKE improved Compressors

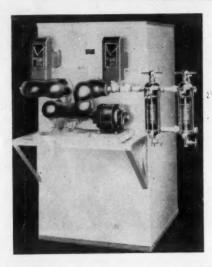
and complete Condensing Units. For long wear and greater operating efficiency, SCHNACKE Compressors have replaceable, refrigerant-cooled steel cylinder sleeves, balanced forged crankshaft, sealed crankcase, positive pressure lubrication, and many othr advanced features. Compressor models available from 5 to 50 H.P.

SCHNACKE Condensing Units are complete with cleanable type fin tube condensers mounted in sturdy base, water control valve and pressure controls. Models available from 5 to 25 H.P.

Write SCHNACKE, INC., 1016 E. Columbia St.,

SCHNACKELING.

What's New



Uniform Temperature Held By Bakery Water Cooler

BROOKLYN-Bakery water uniform in taste, quality, and temperature is said to be provided by Filtrine Mfg. Co.'s newly-developed "Flow Control" water cooler-"a complete and self-contained water conditioning plant."

Tastes, odors, rust, and sediment are prevented from affecting bakery products by integrated Filter-Dechlorinators, according to the company. The patented Flow Control feature reportedly assures temperature uniformity.

"Water can be reduced as low as 34° and as much as 60 gals. can be drawn off in two minutes with no change in temperature from the required minimum and no hour-to-hour variations from the pre-set tempera-Filtrine said. "Uniformly chilled water is rapidly accumulated by a 'super storage' feature."

Remote-Type Room Cooler Requires No Ductwork

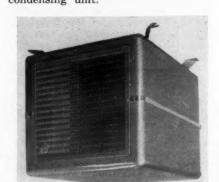
CHICAGO "Comf-E-Fex," a new remote-type cooler, has been introduced by Refrigeration Appliances, Inc., here, according to an announcement by Hugh D. Smart of the firm.

The ceiling unit "is essentially a comfort cooler designed for applications where ductwork is either impractical or undesirable," the announcement said.

One of the features claimed for the cooler is that removal of the throwaway filter is facilitated by a specially designed filter section which also provides access to the interior.

A galvannealed steel housing with a bronze hammer baked finish, a completely insulated housing to insure quiet operation and prevent sweating, a compound pitch drain pan sloping to side and rear, an "oversize" drain outlet, and the Krack "Air-E-Fex" coil element are other features.

Comf-E-Fex is available in four sizes-14, 1, 2, and 3 tons-with heating coils for use with water or steam optional. It may be connected in series for use with a single remote condensing unit.



WANTED

6-Qt. Custard Freezers Serve Direct from Unit

BELOIT, Wis. - Two new 6-qt. freezers, recently announced by Tekni-Craft, manufacturer of Taylor freezers, have been designed especially for serving a cold, stiff, frozen custard, frozen malted, or soft ice cream direct from the unit, according to the company.

One of the new freezers is the Model 6FCR, which has a self-contained hermetic condensing unit. The other is a continuous-service freezer -called Model 6F2R-consisting of twin 6-qt. freezers operated from one self-contained, 1/2-hp. water-cooled condensing unit.

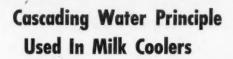
By serving from one freezer while the other is freezing, the operator always has one unit to serve from, it was pointed out.

Freezers on both models are of the direct-expansion flooded type. As there are tubing coils, the refrigerant comes into direct contact with the inner shell.

Shell is cork insulated and hermetically sealed. Inner shell is of stainless steel, and the door is of special alloy "dairy metal." They are equipped with Tekni-Craft's "Draw-Flex" valve for "quick draw off and easy filling" of any size container.

Beaters are the new Gusher" type developed by Tekni-Craft to give maximum overrun and to allow fast ejection even for products frozen down to low temperatures. They are constructed of stainless steel and are silver brazed. The square center shaft is removable. The entire unit can be taken apart for cleaning.

Beater drive is V-belt and all-steel helical gears running in oil. Drive shaft is removable for cleaning, and belt tension is adjustable. Beater motors have built-in overload protection in addition to being rubber



MADISON, Wis.-Sub-Zero Freezer Co., Inc., has announced a new line of milk coolers that utilize a new principle designated as "cascading

In this process, the cooled water is pumped over the milk cans in such a manner that all the cans are given complete coverage, and uniformly fast cooling.

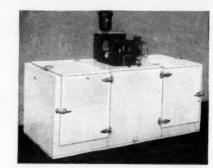
The coolers are made in 6, 8, and 12-can sizes, with heavy galvanized interiors and aluminum exteriors, with infrared baked white enamel.

All the coolers have front opening doors for easy removal and access, and the larger models have top opening doors as well. High lifts of milk cans are thus eliminated.

Compressors and cooling coils are a complete unit, and can be easily removed.

Filling the coolers with water is accomplished by simply dumping water into the cabinet. The water is then pumped into the small water supply tank. A drain is conveniently located in the front of the cabinet. The largest cooler requires only





about 45 gals. of water, it is said. A time switch permits time-setting of the pump for any desired pump-

ing period. After the cooling process, the cans are left clean and dry. Refrigeration is maintained during storage by the water cooling tank.

Westinghouse Ranges Present Massive Appearance



MANSFIELD, Ohio-Four newly styled electric ranges, featuring platforms of titanium steel and titanium porcelain enamel, have been announced by R. M. Beatty, manager of the electric range department of the Westinghouse Electric appliance division.

The Commander and Champion models have 40-in. wide platforms, four full size Corox cooking units, and ovens a full inch wider than in previous models, he said. The Commodore, the low price unit, has a 38in. platform, three full size Corox heating units, and a deep well Econo-Cooker.

new deluxe Commander ranges will include a two-oven model and a single-oven model with warming drawer. The backsplasher runs the full length of the platform and includes a 36-in. fluorescent light.

The toe space has been brought flush with the body of the range. The depth of the toe space is the depth of the extra thick oven doors and hardware.

The cooking controls are grouped together behind the work surface. gwitches are the Glance rotary type. The switch knobs can be removed for cleaning.

The Commander is also equipped with the single dial oven control and minute timer. Three signal lights control the surface units and each of the ovens or oven and warming drawer. Two convenience outlets are provided, one of which is automatically controlled by the timer.

The ovens feature a balanced heat principle. The larger oven employes a 3,000-watt lower element and an 800-watt upper coil for baking and roasting. The utility oven has a 2,100watt lower element and 800-watt upper coil.

The new broiler element in both

ovens has been increased to 3,800

The single-oven model is identical to its two-oven companion except the utility oven is replaced by a warming drawer, having a 325-watt heating element.

The new Champion electric range, a medium price model, is basically the same construction as the deluxe Commander. The new Champion has three aluminum roller-type storage

The Champion has a lighted oven with a porcelain enamel broiler pan and, as standard equipment, an automatic timer clock, a Minute Timer, an automatic outlet and an attractive

In the low price range, the new Westinghouse Commodore has the Corox units located on the right. The Commodore has Tel-A-Glance switches and the single dial oven control.

Two accessories are available in the 1949 electric range line. One is the portable Econo-Cooker and the other is a pressure cooker for use either in the portable Econo-Cooker or the deep well cooker in the Commodore range.

Plastic Midget Fanette Fits In Traveling Bag



CHICAGO-A new midget electric fan known as the Fanette was recently introduced by Fresh'nd-Aire Co., here. Made of lightweight plastic, this new fan weighs but three pounds, takes less than 10 in. of space in a traveling bag-yet provides all the comforts formerly requiring a full-size non-portable fan.

The Fresh'nd-Aire Fanette will retail for \$11.95.

installation and service for our stainless steel soft drink Dispensers for Bars and Taverns, advise business experience and some facts relative to your financial ability.

> INCREASES PROFITS FOR BARS AND TAVERNS

Exceptionally profitable to h MULTIPLEX FAUCET CO. 4325 DUNCAN, ST. LOUIS, MO.

- MANUFACTURERS OF SOFT DRINK DISPENSERS OVER 43 YEARS -

DEALERS - DISTRIBUTORS WANTED!

ROYAL DRY BEVERAGE COOLERS Incorporating the following features: Rust-proof Stainless Steel and Aluminum Interiors-Silver

Soldered Peerless Fin Coils—Blower Type—Sliding Hard Rubber Doors—Heavy Sealed Insulation.

IMMEDIATE DELIVERY IN 4, 6, and 8 FOOT LENGTHS IN BOTH REMOTE AND SELF-CONTAINED MODELS.

ROYAL COOLER COMPANY BREESE, ILLINOIS

DISTRIBUTORS

Telephone

Not even Room Air Conditioners WILL SELL THEMSELVES!

Therefore, sell the most salable line

At the Chicago air conditioning show in January, 10 companies displayed 1949 room air conditioner lines—and Remington ranked No. 1 on more vital selling points than any other. Only Remington offers all these features:

 The most complete line—½ to 1¾ hp.

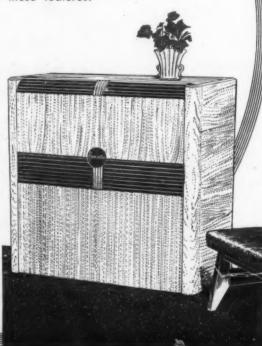
The most beautiful cabinets-all in

- fine furniture woods Window sill and console models
- Models for AC and DC
- Air-cooled and water-cooled models

Remington Room Air Conditioners are sold direct to installing distributors, giving you greater mark-up and complete control of your sales. Your territory may still be open. Write today for complete details.

REMINGTON AIR CONDITIONING Division of Remington Corp.

CORTLAND, N. Y. Cables: REMINGAIR



What's New (Con't)

Frozen Food Merchandiser To Lure 'Impulse' Buyers



The Savage Arms Corp. of Utica, N. Y. has introduced this 18.7-cu. ft. "double-duty" frozen food merchandising cabinet designed to promote tie-in sales and spur "impulse" buying. Called the M-18, it features a selling compartment with storage space beneath. The superstructure has four threedimensional photographs in full color.

Peerless Introduces Two New Valves for Small Jobs

claimed.

CHICAGO-A new automatic expansion valve for "Freon", methyl, or sulphur dioxide systems and new thermostatic expansion valves for "Freon" and methyl are being introduced by Peerless of America, Inc., 2901 Lawrence Ave. here.

The automatic valve, called the model AXV, is designed to handle capacities up to ½ ton. It is actuated by variations in coil pressure. It closes tightly when the compressor stops and does not open again until the evaporator pressure is pulled down to the pressure for which the valve is adjusted, according to the company.

The valve is claimed to have an absolute moisture proof adjustment without sealing caps over the adjusting screw.

List price is \$9.35.

The thermal valves, called the TXV-F and TXV-M, have a maximum capacity of 6,000 B.t.u. per hour. They can be used on any temperature application, either high or low, according to the manufacturer.

The new super-vapor charge provides constant bulb control, he said. No matter how cold the liquid supply, the bulb always controls. It can be



evaporator and vice versa. The company noted that the end of the bulb must point downward, not more than 45° from the vertical. List price of the valve is \$12.82.

installed in any position or any am-

bient temperature condition, he

for best results, be inside the refrig-

erated compartment and never in

the direct path of a forced air circu-

sliding the bulb up or down across

the suction line, the company ex-

plained. The farther the bulb end is

slid below the suction line, the

greater the amount of refrigerant

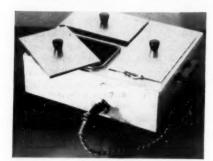
that the valve tends to feed to the

Superheat is adjusted merely by

lation," Peerless declared.

"The variable contact bulb should,

Food Warmer Features 3 Big Dishes, Two Heats



NEW YORK CITY-An electric food warmer that consists of three 2-qt. heatproof glass dishes in a super-chrome plated cabinet has been introduced by National Silver Deposit Ware Co., Inc. here.

The food warmer has a two-heat plug for either cooking or warming food and operates on both a.c. and d.c., the manufacturer said.

It measures 12 in. by 14 in. by 51/2 in. and comes with either metal or glass covers. With metal covers it retails for \$66.50 and with glass covers it lists for \$59.50.

The manufacturer is located at 44 W. 18th St., New York 11.

a Sure Winner! KRACK SAN-E-FEX

The Ultimate In Remote Air Conditioners

SAN-E-FEX, our remote type low side air conditioning unit not only presents a highly finished appearance but represents the ultimate in sound engineering and construction principles.

You will like the even fin spacing on the tried and proven Air-E-Fex coil element . . . the sturdiness of the all steel angle frame . . . the eye catching sparkle of the glistening pearl grey baked wrinkle finish studded with cadmium plated bolts and You will also like the large, slow speed centrifugal blowers which deliver properly conditioned air at a minimum noise level . . . and above all, trouble-free years of balanced performance which go with every SAN-E-FEX Unit.

Available in six sizes in capacities from 5 to 25 tons. . . . Large filter area incorporating removable filters . . . 4 or 6 row cooling coil optional . . . heating coils optional. . . . Multi-feed expansion valve installed on all direct expansion units.

Write For Krack Bulletin No. 32849

REFRIGERATION APPLIANCES INC. 923 W. LAKE STREET CHICAGO 7, ILLINOIS

Manufacturers Of Refrigeration And Air Conditioning Lowside Equipment

UNIT COOLERS GRAVITY COILS FREEZING. UNITS COMFORT COOLERS AIR CONDITIONING UNITS AND COILS

Conversion Water Heater Units Have Built-In Control

PITTSBURGH-A new series of Chromalox screw-in type electric water heater units with built-in ther-



mostatic control has been announced by Edwin Wiegand Co.

The new electric heaters were designed for conversion of standard fuel fired hot water tanks to electricity. They are especially ap-

plicable for the farm-in dairy and poultry buildings-and in summer cabins; and for commercial and industrial purposes which require limited amounts of convenient hot water.

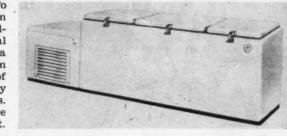
The heating element is a Chromalox copper-sheathed, enclosed type tubular heater brazed into a 1-in. red brass screw plug with a sealed brass well for the sensitive thermostat bulb.

The thermostat, complete with removable housing, is mounted directly on the screw plug, and may be set to control water temperature between 100° and 170° F. The well is located so as to be in contact with the element for protection if water level should drop below the element.

The new series, identified as Type ARTM, is available for 118 or 236volt service and wattages of 750, 1,000, 1,250, and 1,500. The units may be used singly or doubly in tanks up to 80-gal. capacity.

26-Cu. Ft. Frigidaire Freezer Holds 900 Lbs. of Food

DAYTON, Ohio - To round out its line of farm and home freezers, Frigidaire Div. of General Motors is introducing a new 26-cu. ft. farm freezer with 900 lbs. of frozen storage capacity for large rural families. Also included in the line are eight and 18-cu. ft.



Finished in white enamel and constructed of heavy-gauge steel with welded seams, the new freezer is 139 in. long, 29 in. wide, and 37 in. high. A thick layer of fibrous glass insulates the walls and bottom of the storage and freezing compartments.

A reciprocating type refrigerating unit is hooked up with wrap-around refrigerant coils, which are fastened to the outside of the compartment

The big 5.6-cu. ft. freezing compartment is equipped with a special coiling arrangement to speed up the freezing operation. The storage compartment, with 20.5 cu. ft. capacity, is automatically maintained at constant low temperature.

An' independently-powered alarm bell sounds whenever the cabinet temperature rises five or 10°. All joints are locked and soldered watertight. Removable divider racks are included.

Vertical racks, each with capacity to hold nine quart-sized food packages, are available as accessory equipment along with wire baskets which may be placed one above the other. Each basket has a capacity for 16 quart-sized packages. Lids are counter-balanced.

Quiet-Heet Bows In 1/2 -Hp. **Room Air Conditioner**

NEWARK, N. J.-A new model window-mounted room air conditioner, powered by a 1/2-hp. hermetic compressor, is being introduced under the name Quiet-Kool by Quiet-Heet Mfg. Co. here.

S. L. Peters, president of the firm, said that the thermostatically controlled model G-5 is rated at 5,850 B.t.u. per hour and is provided with a single fan motor operating at 1,075 r.p.m. The cabinet projects only 9% in. into the room.

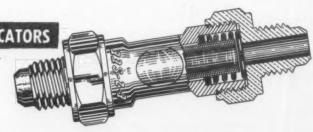




tons (Freon 12); Suction Line-1/2 to 1/2" OD. Also available with Depth FILTER element in same range of sizes.

SEE LIQUID INDICATORS

A new design in liquid indicators that is positively leakproof and 100% foolproof. It can't leak because the springs in each end form a positive seal around the glass to compensate for cold flowing: it's E-Z to see through—the glass magnifies when filled with liquid; it's perfectly safe because the glass actually floats in spring-compensated Neoprene gaskets—is suitable for working pressures up to 500 PSI. With male x male, female x male, or OD sweat tube connections.



STANDARD - DUTY DRIERS



An ideal low-cost all-brass Drier for standard-duty liquid line service to 1 HP. Inlet end uniquely equipped with exclusive perforated strainer cup which holds Silica Gel granules permanently in place, permitting horizontal, vertical, or inverted installations. Outlet filter element is 30 x 150 mesh Dutch plain weave.

Also available as FILTERS only.

Send for Circular 711-A for 'all the facts' about temperature effect on drier performance

Informative, Technical Literature and prices available on request

Sold by Leading Wholesalers Everywhere.

West Coast Warehouse Stock 2103 So. San Pedro St., Los Angeles 11, Calif.





Where Water Is the Problem **EVAPORATIVE CONDENSERS**



If you think a camel goes a long way on a little water . . . then you should see this Governair Evaporative Condenser operate! Save up to 95% of water normally used by water-wasting type condensers! Eliminate waste-water disposal problems and pumping costs, too. Engineered to give maximum efficiency and performance at a minimum cost.

Choose a Governair Evaporative Condenser, and forget those water problems!

Governair Evaporative Condensers are also furnished as an integral part of universally acclaimed Governair Packaged Air











BLAST COILS FOR HEATING & COOLING

ORIGINATORS OF COMPLETELY PACKAGED AIR CONDITIONERS



GOVERNAIR CORPORATION • 513 N. BLACKWELDER • OKLAHOMA CITY, OKLA.



5-Ton Cooling Unit Reduces Time Customers Must Wait For Prescriptions

OKLAHOMA CITY - Installation of a 5-ton Servel air conditioning unit at Connie's Prescription Shop, outstanding apothecary drugstore on N. Walker Ave. here, has brought many benefits to the store, according to C. J. Masterson, owner.

The gas-fired air conditioning unit, installed in the store's basement, keeps the interior at a pleasant 80° F. the year-round. Ductwork throughout is stainless steel, with a single traveler duct running up the center of the ceiling with three triangular outlets cooling a customer's waiting room, and the prescription compounding area immediately behind.

The pleasantly cool atmosphere makes customers less inclined to complain over delays while prescriptions are being compounded, Masterson says. In addition, drugs are easier to handle because humid heat is not permitted to cause stickiness or adhering to containers.

Air Conditioning Coil Specifications Listed In New Kramer Catalog

TRENTON, N. J.—A new 32-page catalog on Kramer air conditioning coils was published recently by the Kramer Trenton Co. here.

A feature of the book, called catalog A C 173, was a listing of typical specifications for all coils except the non-freeze steam coils. This section read as follows:

"The tube shall be copper \% in. outside diameter arranged in each stack on 11/2 in. centers. If more than one stack is used the tubes will be staggered. The fins shall be aluminum plate type spaced 8 fins per in.

"The tubes shall be hydraulically expanded into the fin using internal hydraulic pressure of not less than 3,000 lbs. p.s.i. All joints shall be silver soldered.'

The catalog provides information on how to select proper direct expansion, steam, or water coils and includes a number of tables on ratings, K-factor, air friction, water friction, mean temperature difference. and properties of air.

4 Connor Distributors Named To Cover East, Midwest Areas

NEW YORK CITY-W. B. Connor Engineering Corp., manufacturer of Dorex activated carbon air purification equipment, has announced the following distributor appointments

for its apple storage units:

McCune Co., Youngstown, Ohio, for Ohio, western Pennsylvania, and northern West Virginia; John Bacon Co., Gasport, New York, western and northern New York; Trobaugh Homestead, West Frankfort, Ill., for southern Illinois and Indiana; and Insecticide Co., Arlington, Mass., for New England.

Don Hawk Associates, Inc. Will Handle Trion Air Filter Line

NEW YORK CITY-Appointment of the Don E. Hawk Associates, Inc., 207 E. 43rd St., here as the exclusive representative for the sale and service of Trion Electric Air Filters, in the greater New York area and northern New Jersey.



Business establishments of all kinds will welcome this attractive method of advertising the fact that their locations are air conditioned and at the same time inform the public that YOU did the job!

Made of durable 48" x 16" banner cloth, with six grommets, these dark blue

streamers, imprinted in an icy white, will carry your name to thousands of potential customers. There is no better, more economical way to advertise . . . stock up

Free imprint on quantities of 20 or more. \$15.00 for imprint on smaller quantities. FOB Cleveland. Send check with order and save freight and COD charges.

now and be ready when the season arrives! AIRCO PROMOTION CO. 508 Hippodrome Bldg. CLEVELAND 14, OHIO

One of a series from by James J. LaSalvia

Readers who have any questions regarding the application of air conditioning are invited to write to Mr. LaSalvia, the author of this series, who will be pleased to furnish a complete and detailed answer free of charge. This is another of the services provided by the NEWS.

Piping Refrigerant, Water, Steam (Cont.)

COMPRESSOR AND EVAPORATOR CONDENSER CONNECTIONS

Fig. 6 shows a typical refrigeration piping connection for a compressor and evaporator condenser combina-

EXAMPLE NO. 2

Assume the refrigeration load is 100,000 B.t.u. per hour and in every respect the same as in Example No. 1, except that an evaporator condenser is used. What is the size of the hot gas line LM in Fig. 6, if the hot gas line length, including fittings, is 120 ft., 100 ft., 70 ft., 50 ft., 30 ft., and 10 ft.?

Find equivalent pressure drop for 100 ft., using pressure drop from Table 4a.

100	ft.					
		\mathbf{x}	5	lbs.	= 4.2 lbs. p.d.	
120	ft.				equivalent to 100 ft.	
100	ft.				= 5 lbs. p.d.	
100	ft.				-	
		x	4	lbs.	= 5.7 lbs. p.d.	
70	ft.				equivalent to 100 ft.	
100	ft				-	

- x 3 lbs. = 6 lbs. p.d. 50 ft. equivalent to 100 ft. 100 ft. $- \times 2 \text{ lbs.} = 6.7 \text{ lbs. p.d.}$

equivalent to 100 ft. 100 ft. x 1 lb. = 10 lbs. p.d. equivalent to 100 ft. 10 ft.

Referring to Table 1, and using 100,000 B.t.u. capacity, the size of the hot gas line LM is as follows: For 120 ft. long @ 4.2 lbs. p.d. per 100 ft. = 1%-in. o.d. tubing. For 100 ft. long @ 5 lbs. p.d.

per 100 ft. = 1%-in. o.d. tubing. For 70 ft. long @ 5.7 lbs. p.d. per 100 ft. = 1%-in. o.d. tubing. For 50 ft. long @ 6 lbs. p.d. per 100 ft. = 1%-in. o.d. tubing. For 30 ft. long @ 6.7 lbs. p.d. per 100 ft. = 1%-in. o.d. tubing. For 10 ft. long @ 10 lbs. p.d. per 100 ft. = 1%-in. o.d. tubing. In all of the above cases a 1%-in. o.d. tubing should be used.

The liquid and suction lines in this case are figured in the same manner as for Fig. 5.

Fig. 6 also shows the auxiliary equipment to be used on these types of systems.

In this type of a system there are two main points to remember, which should be included in the design:

1. Hot gas line loop.

2. Liquid line loop.

The hot gas line loop acts as an oil trap during the off cycle.

The liquid line loop relieves the expansion valves from taking directly, the static head pressure of the liquid from the evaporator con-

(To Be Continued)

Typical Connections for Evaporative Condenser

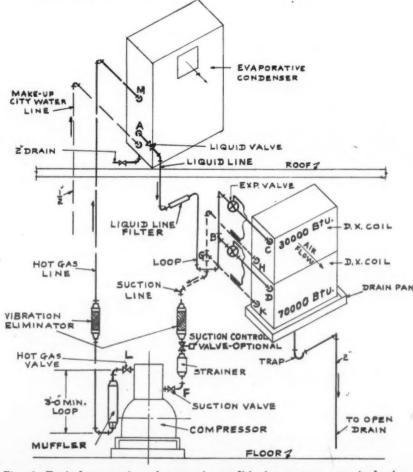


Fig. 6-Typical connections for an air conditioning system comprised of a single compressor, an evaporative condenser, and two direct-expansion coils are indicated in this schematic view.

SERVING THE REFRIGERATION INDUSTRY

Gaskets, sponge rubber tubing, charging lines, vibration eliminators, coupling connectors, vibration mounts, flexible conduit, the Door Gasket Notcher, and other specialties.

in



Program Details

APRIL 4

HOME SERVICE CONFERENCE

(Presiding: Miss Lucile Johnson, chairman, home service committee.) Welcome-H. A. Stroud, chairman, residential section.

9:30-Adequate wiring presentation, Frances Armin, director of consumer education, National Adequate Wiring Bureau.

10:00-"Role of Home Service In Promoting Electrical Living," Clara Zillessen, discussion leader, Philadelphia Electric Co.

11:15-"Selling Glamor In Home Freezers," Adelaide Fellows, director of home economics, Philco Corp.

2:00-"Tools for Home Lighting 1949-1950," Myrtle Fahsbender, director of residential lighting, Westinghouse Electric Corp.

2:30—"Measuring Home Service Results," C. A. Collier, Georgia Power Co.

3:00—"New Techniques In Electric Range Demonstrations," Julia Kiene, manager, home economics department, Westinghouse Electric Corp.

3:15—"Electronics In Cooking," J. R. Poteat, manager, range and water heater divisions, General Electric Co.

APRIL 5 RESIDENTIAL SECTION

(Presiding: H. A. Stroud, chairman, residential section.)

10:00-Opening remarks, H. A. Stroud, Monongahela Power Co.

10:10—"Does the Automatic Electric Laundry Build Load?" E. O. George, Detroit Edison Co. 10:40—"New Possibilities With Home Freezers," Nema representa-

tive (to be announced later). 11:00—"What Is the Appliance Outlook?" T. J. Newcomb, sales

manager, electric appliance division, Westinghouse Electric Corp.

11:30—"All Aboard," skit presented by the Electric Kitchen and Laundry Committee.
2:00—"The Green House"—a film.

2:30—"Let's Sell More CLM Lamps," H. H. Brenan, Pennsylvania Power & Light Co.

2:50-"Teaching About Light and Sight"-a symposium, Robert I. Bull, Ohio Power Co.; Logan R. Cole, West Penn Power Co.

3:15-"The New Look In Home Service," Miss Leonora O'Neal, Gulf State Utilities Co.

3:40-"Recruiting Home Service Women," Mrs. Mariquita Dygert, Detroit Edison Co.

4:10-"Television Puts It On the Line," George W. Wallace, television network sales promotion manager, National Broadcasting Co.

APRIL 6-MORNING SESSION GENERAL SESSIONS

(Presiding: Harry Restofski, chairman, commercial division general committee.)

10:00—Opening remarks, Harry Restofski. "What's Ahead for the U.S. A.?"

Merryle Stanley Rukeyser, lecturer and newspaper columnist.

"A 122 Billion Dollar Business and 24 Million People," Paul D. Sanders, editor, The Southern Planter.

"The Constant Bride"—showing of the color motion picture prepared for the EEI all-electric kitchen program.

AFTERNOON SESSION

"The Lighting Load Is the Mother 'Lode,' " a dramatic presentation. "Television-A Load Builder?" Fred A. Compton, general sales manager, Detroit Edison Co.

"E-Day Minus 55," Ted Malone, radio commentator.

"Understanding," Nathaniel Leverone, chairman of the board, Automatic Canteen Co. of America.

APRIL 7 GENERAL SESSIONS

9:30-Announcement of prize award contests and presentation of 1948 awards, H. M. Sawyer, chairman, EEI prize awards committee.

Productive power show, Westinghouse Electric Corp.

Luncheon session-Speakers: Ernest R. Acker, president, Edison Electric Institute, and president, Central Hudson Gas & Electric Corp., and J. B. Thomas, president, Texas Electric Service Co.

SPECIAL EVENTS

April 5-Farm section luncheon-Speaker: Dr. William I. Myers, dean of agriculture, Cornell university, "What's Ahead for Farm Electrifi-

April 6-Public Utilities Advertising Association luncheon-Speaker: Dale Cox, director of public relations, International Harvester Co., "Looking Over Your Shoulder."

EEI Convention Opens April 4--

(Concluded from Page 1, Column 3) According to a tentative program, the appliance outlook will be analyzed by T. J. Newcomb, sales man-

Electrical Appliance. Div., Westinghouse Electric Corp. A representative of Nema will consider the home freezer market, and E. O. George of Detroit Edison Co. will answer the question, "Does the Automatic Electric Laundry Build Load?"

Also on the residential section program is an address on television by George W. Wallace, television network sales promotion manager for the National Broadcasting Co., and talks by Leonora O'Neal, Gulf States Utilities Co., and Mariquita Dygert, Detroit Edison Co., on home service.

In addition, the electric kitchen and laundry committee will present a skit, and there will be a film on home lighting, a talk on "CLM" lamps, and a symposium on light and sight.

Among those scheduled to address the general sessions are Merryle Stanley Rukeyser, lecturer and newspaper columnist; Paul D. Sanders, editor of The Southern Planter; Fred A. Compton, general sales manager, Detroit Edison Co.; Ted Malone, radio commentator; and Nathaniel Leverone, chairman of the board, Automatic Canteen Co. of America.

Those attending general sessions also will see the color motion picture, "The Constant Bride," prepared

for the EEI all-electric kitchen program; watch a dramatic presentation on lighting; and view the Westinghouse-electric utility cooperative program on productive power.

Ernest R. Acker, EEI president, and J. B. Thomas, president of Texas Electric Service Co., will address the luncheon session April 7.

Special events will include a farm section luncheon April 5, with Dr. William I. Myers, dean of agriculture, Cornell university, as the speaker, and a public utilities advertising association luncheon April 6, which will be addressed by Dale Cox, director of public relations, International Harvester Co.

Exhibits (which are limited to associations) will be set up by the National Appliance & Radio Dealers Association, Certified Lamp Makers, National Electrical Manufacturers Association, Vacuum Cleaner Manufacturers Association, National Adequate Wiring Bureau, Illuminating Engineering Society, Fleur-O-Lier Manufacturers, National Electrical Contractors Association, and American Washer & Ironer Manufacturers Association.

EEI will also have its own exhibits on the planned lighting and allelectric kitchen programs.

Preliminary programs for the home service conference, residential section meeting, and general sessions are in column 1 on this page.

January Home Freezer Sales by **Producers Reporting to Nema**

Electric Farm and Home Freezers-Complete-Sales by Sizes-Units Farm and home freezers complete with high and low side and cabinet, where 50% or more of the net cabinet capacity is designed for the freezing and/or storage of frozen food.

JANUARY (31 Companies)

		States		Other	
	Sizes an	d D. C.)	Canadian	Foreign	Total
1.	4.9 cu. ft. and under	1,348		2	1,350
2.	5.0 to 6.9 cu. ft	1,625	****	187	1,812
3.	7.0 to 8.9 cu. ft	9,400	. 1	43	9,444
4.	9.0 to 10.9 cu. ft	1,083		3	1,086
5.	11.0 to 12.9 cu. ft	6,429	****	9	6,438
6.	13.0 to 16.9 cu. ft	3,478	****	17	3,495
7.	17.0 to 20.9 cu. ft	2,743	****	1	2,744
8.	21.0 to 29.9 cu. ft	500	****	****	500
9.	30.0 to 39.9 cu. ft	332	****	****	332
10.	40.0 to 49.9 cu. ft	****	****		
11.	50.0 to 59.9 cu. ft	1	****	****	1
12.	60.0 cu. ft. and over	25	*	3	28
	Total	26,964	1	265	27,230
	D 11 1 11	A C. L.		1 = 5 1	200 0

Participating companies: Ace Cabinet Corp.; August G. Barkow Mfg. Co.; Beatty Mfg. Co.; Ben-Hur Mfg. Co.; Brewer-Titchener Corp.; Carrier Corp.; The Coolerator Co.; Avco Mfg. Corp.; Deepfreeze Div., Motor Products Corp.; Frigidaire Div., General Motors Corp.; General Electric Co.; General Refrigerator Co.; Hotpoint, Inc.; International Harvester Co.; Masterfreez Home Locker Mfg. Co.; The Maytag Co.; Nash-Kelvinator Corp.; Gibson Refrigerator Co.; Norge Div., Borg-Warner Corp.; Oregon Refrigerator Co.; Portable Elevator Mfg. Co.; Revco, Inc.; Sanitary Refrigerator Co.; Schaefer, Inc.; Seeger Refrigerator Co.; Emil Steinhorst & Sons, Inc.; Stoddard Mfg. Co.; Sub-Zero Freezer Co., Inc.; Victor Products Corp.; Wilson Cabinet Co., Inc.; Whiting Corp.

Freezer Sales --

(Concluded from Page 1, Column 2) from 859 units sold in December to 6,438 in January. A gain of from 7 to 28 units was made in the 60-cu. ft. or over group.

Sharpest drop was felt in the 13 to 16.9-cu. ft. class where the comparative figures were 6,431 in December and 3,495 in January. More units had been sold in this size range than in any other in December. It was second in January.

Sales in the 30 to 39.9-cu. ft. class fell from 811 to 332 in January.

Nineteen Hundred Corp. Plans Automatic Washer

ST. JOSEPH, Mich.-A new building is now being constructed by Nineteen Hundred Corp. here for the manufacture of an automatic clothes washer and a clothes drier, Louis C. Upton, president, declared in the company's annual report recently.

Upton said that the drier will be a new product for the company. The building is expected to be completed later this year. With equipment it will cost approximately \$2,800,000.

He reported that the \$42,450,936 sales volume reached in 1948 was a new high for the company. It was about \$18,500,000 larger than the 1947 figure.

Net profit for 1948 amounted to \$3,117,547, as compared with \$1,473,-083 in the preceding year.

Locker Plants Big Help In Winter-Hit West

LINCOLN, Neb .- Directors of the Nebraska Frozen Foods Locker Association have set the 1949 convention date for May 15 and 16 at the Cornhusker hotel in Lincoln, and reported that Nebraska's frozen food locker industry has had a business boom this past winter, due to the severe cold weather and blizzards.

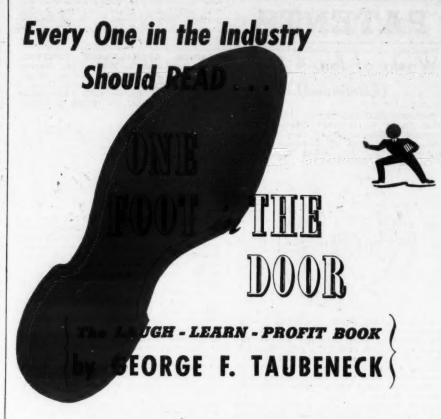
Increased business at the plants was attributed to the bad weather, fear of higher meat prices, and shortages resulting from livestock losses.

Russell A. Therein, Lincoln, second vise president, declared that the lockers played an important role in the food-shortage emergency faced by snow-stranded communities.

In the western and northern parts of the state, he pointed out, lockers were practically the only source of meat supply, since the big meat distributors were unable to get their trucks or railroad cars into the area.

Some communities had neither truck nor railroad service for approximately two months, and supplies from local locker plants were a godsend in averting actual hunger. Some supplies were parachuted in or brought in by army "weasels."

Directors pointed out that the heavy business locker plants have enjoyed during the past two months is unusual in view of the fact that the normal pattern is for business to slacken following the holidays and pick up again in the spring.



. . . Because Every Laugh Drives Home a SOUND SALES PRINCIPLE!

"This is a funny book," declares George Taubeneck, editor of Air Conditioning & Refrigeration News, in his heading for Chapter 1. That's true. You'll laugh! You'll learn, too.

"One Foot in the Door" is the laugh-and-fact-packed story of Specialty Selling. It takes you back through chuckling pages to the birth of the specialty merchandising art under John H. Patterson of N.C.R. fame, and it takes you forwardagain with smiles and guffaws—to the shining future.

It clearly delineates the selling principles which years of experience have set up-and makes them easy to remember by associating these principles with humorous anecdotes. It vigorously points up the job ahead for sales management-tells what, where, why, when, and how.

It pleads eloquently for-and points the way toward-the more efficient distribution system that will be one of the strongest bulwarks of private

It does all this so agreeably and fascinatingly that, when you finally finish it, you'll call it the most enjoyable book you've read in a decade.



CHAPTER TITLES from "One Foot in the Door"

- "This Is a Funny Bo
- The Old Master—and How He Got That Way
- Making Direct-Mail Advertising Respectable
- Hair Grows on a Billiard Ball
- Publicity Isn't Always Free
- People See Better Than They Hear
- How to Humanize Your Company Tom Thumb Cartels
- Finding the Rainbow's Pot-of-Gold

- There's Always One Best Way to Tell Your Story 11. You Can't Get Off First Base Without
- Everybody Loves a Convention

12. "It Pays for Itself"

Sales Training Schools Must Be Clever and Entertaining

13. · Ask the Man Who Uses One

- Circuit Riding Be
- Make It Clear, Make It Simple, Make It Direct
- 18. Just a Minute, Dear
- Five Will Get You Ten
- Mama Can Help, Too 21. Ask the Man Who Does the Work
- Factory Open House Policy Who Says You Can't Sell Abroad? "Tell All" Promotion Rings the Bell

1346

PUBLISHED BY

BOOK DIVISION OF BUSINESS NEWS PUBLISHING CO.

> 450 WEST FORT STREET **DETROIT 26, MICHIGAN**



USE THIS COUPON -

LUSE THIS COUPON

CONJURE HOUSE Div. of Business News Publishing Co. 450 WEST FORT STREET DETROIT 26, MICHIGAN

PLEASE SHIP US COPIES OF "ONE FOOT IN THE DOOR" AT \$3.00 PER COPY.

☐ CHECK ENCLOSED

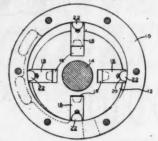
BILL US

Postpaid only when remittance accompanies order.

PATENTS

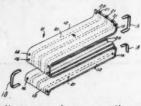
Weeks of Jan. 4 & 11 (Continued)

2,458,620. SLIDING VANE COMPRESSOL. David W. Megeber, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application May 28, 1945, Serial No. 596,285. 2 Claims. (Cl. 230—152.)

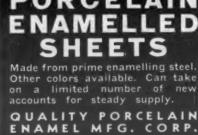


1. In a rotary pump, a housing having a compression chamber therein, said housing including port openings for the ingress and egress of fluid, a rotor mounted for rotation in said chamber, a unit comprising a vane and a shoe slidable within said rotor, said unit being loosely held within said rotor and movable outwardly thereof during its rotation to cause said shoe to engage the wall of said chamber for separating the incoming fluid from the outgoing fluid, said unit being freely retractable when the rotor stops rotating to cause disengagement of said shoe from said chamber wall, said vane having an arcuate recessed portion cooperating with arcuate recessed portion cooperating with an arcuate surface portion on said shoe permitting oscillating movement of said permitting oscillating movement of said shoe relative to the vane, said arcuate recessed portion on said vane extending throughout an arc greater than 180° for locking said shoe to said vane against relative movement therebetween in a direction transverse to the direction of extension of said arcuate portions, said arcuate recessed portion of said vane having a slot therein extending longitudinally therewith from one end of the vane to a point inwardly of said end thereof, and said shoe having a stop movable into said slot upon inserting said arcuate surface portion of the shoe tinto said surface portion of the shoe into said arcuate recessed portion of the vane through said one end thereof for limitthe oscillation of said shoe relative

2,458,629. SERPENTINE FREEZER SHELF. George Orley, Detroit, Mich. Ap-plication June 13, 1945, Serial No. 600,081. 1 Claim. (Cl. 62—128.)

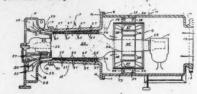


A unitary one piece serpentine or sinuous freezer shelf member for refrigerators ous freezer shelf member for refrigerators comprising at least three parallel horizontal shelves connected by at least two vertical portions, all integral, and formed with hollow ribs extending from end to end, these ribs reinforcing the member and also providing conduits for refrigerant, the ends of these conduits being in sealed communication with refrigerant inlet and outlet tubes, the conduits having flat parallel top and bottom sides and being positioned midway of the rib, the



ends of the member being formed as vertical extensions, these and the vertical portion being adapted to be fastened to vertical walls of the refrigerator to secure the member in place. the member in place.

2,458,730. REFRIGERANT COMPRES-SOR. Alexander I. Ponomareff, Haverstown, Pa., assignor, by mesne assignments, to Westinghouse Electric Corp., a corporation of Pennsylvania. Application Nov. 20, 1946, Serial No. 711,006. 11 Claims. (Cl. 230—117.)



1. A refrigerant compressor comprising a casing having a suction passage for refrigerant vapor, and a diffusion passage including an annular passage curving outwardly to provide a compressed refrigerant vapor outlet directed transversely of the compressor axis; a referre spiritle wardly to provide a compressed refrigerant vapor outlet directed transversely
of the compressor axis; a rotary spindle
within the casing having journal portions
at its upstream and downstream ends,
and a hub adjacent the downstream journal portion, said hub cooperating with
the casing to provide a blade passage
connecting the suction and diffusion passages, said blade passage being axially
aligned with the suction passage; axiall-flow blading in the blade passage
and including a plurality of rows of rotary blades carried by the hub and guide
vanes carried by the casing; bearings
carried interiorly by the casing for said
journal portions, and an electric motor for
driving the spindle and arranged in the
suction passage so that the stream of refrigerant vapor flowing in the latter passes
through and about the motor, said motor
including a rotor mounted on the spindle
between the hub and said upstream
journal portion. journal portion.

2,458,759. GAUGE FOR MEASURING SUBATMOSPHERIC PRESSURES. Gurdon R. Abell, Jr., Poughkeepsie, N. Y. Application Nov. 3, 1944, Serial No. '561,-757. 13 Claims. (Cl. 73-400.)

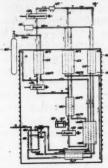


11. A pressure gauge for measuring low gas pressures comprising a closed and sealed transparent container, partly filled with a liquid, means for connecting the section of the container above the liquid with the gas whose pressure is to be measured, a bulbous entrapment cup floating in said liquid, and magnetically operated means for moving said entrapment cup within the closed container from its floating position to a position above the liquid level, for holding it in this position and returning it into its floating position, said magnetically operated means comprising a magnetically 11. A pressure gauge for measuring lov ated means comprising a magnetically permeable body within the container adapted to entrain the entrapment cup, and a magnetically active means outside the container adapted to produce a mag-netic field which is movable along the container for entraining the magnetically permeable body within the container.

LOW-TEMPERATURE RE-2,458,394. LOW-TEMPERATURE RE-PRIGERATION SYSTEM. Samuel C. Collins, Cambridge, Mass., assignor, by mesne assignments, to Arthur D. Little, Inc., Cambridge, Mass., a corporation of Massachusetts. Application Oct. 14, 1940, Serial No. 361,137. 14 Claims. (Cl. 62—178.)

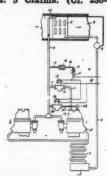
3. A low temperature gas cycle refrigs. A low temperature gas cycle refrig-eration system comprising a compressor, a heat exchanger, an expansion engine for the expansion of compressed gas with performance of external work, a second heat exchanger, a second expansion en-gine for the expansion of compressed gas with performance of external work, conduit means for conveying a portion of the compressed gas from the compressor through said first heat exchanger to said first expension engine conduit means for first expansion engine, conduit means for conveying expanded gas from said first expansion engine through said first heat exchanger counter-current to the flow of compressed gas therethrough, conduit

means for conveying a further portion of the compressed gas successively through said first and second heat exchangers to said second expansion engine, conduit



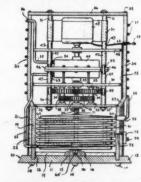
means for conveying expanded gas from said second expansion engine through a space to be cooled and thereafter succes-sively through said second and said first heat exchangers counter-current to the flow of compressed gas therethrough.

2,458,933. UNLOADER FOR RECIPEO-CATING GAS COMPRESSORS. Wayne E. Dodson, Caldwell, N. J., assignor to Gen-eral Electric Co., a corporation of New York. Application Dec. 18, 1946, Serial No. 717,002. 5 Claims. (Cl. 230—22.)



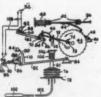
1. A reciprocating gas compressor comprising a cylinder having intake and discharge valves, means providing intake and discharge passages adjacent said intake and discharge valves respectively, an outlet connection communicating with said discharge passage, bypass means pro-viding communication between said disviding communication between said discharge and intake passages for unloading said cylinder, means for closing said bypass to load said cylinder, a check valve for preventing return of gas through said outlet connection to said discharge passage upon opening of said bypass, and means rendered effective upon the loading of said cylinder for retaining said check valve in its open position to prevent vibration of said check valve.

2,458,940. REFRIGERATING DEVICE 2,468,940. REFRIGERATING DEVICE FOR THE MANUFACTURE OF FROZEN COMESTIBLES. Reginald P. Harless Ossining, N. Y. Apylication June 16, 1945, Serial No. 600,153. 5 Claims. (Cl. 62—114.)



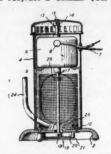
 A freezing unit comprising a housing of substantially cylindrical form, a base having a groove to receive the lower end of the housing, a motor, a compressor, and a speed reduction gearing driven by the shaft of the compressor, said motor, the shaft of the compressor, said motor, compressor and speed reduction gearing being mounted in the upper end of the housing, a food container adapted to be centered on the base and enclosed within the lower end of the housing, an agitator rotatably mounted within the container and adapted to be loosely connected with the speed reduction gearing to be driven thereby, cooling coils surrounding the ex-terior of the housing and connected with the discharge end of the compressor, freezing coils on the interior of the housing and surrounding the food container, said freezing coils being connected with the intake side of the compressor, a pipe connecting the cooling coils and the freezing coils and an expension valve in said ing coils and an expansion valve in said

2,459,083. REPRIGERATOR PROVIDED WITH A DEFROSTING CONTROL FOR REPRIGERATION THEREOF. Graham S. McCloy, Spring-field, Mass., assignor to Westinghouse Electric Corp., East Pittsburgh, Pa., a corporation of Pennsylvania. Application July 11, 1946, Serial No. 682,896. 10 Claims. (Cl. 62—4.)



6. Control mechanism for refrigerating apparatus including a cooling unit, an electrically-driven refrigerant apparatus for supplying refrigerant to said cooling unit, and electric supply lines for operat-ing said apparatus, said mechanism comprising a first and a second electric switch adapted to be located in said lines in series with said apparatus, said first switch being actuated through resilient means by an actuating member adapted for response to the temperature of said cooling unit to assume a plurality of positions, said first switch and actuating tions, said first switch and actuating member controlling said apparatus to maintain said cooling unit at a substantially constant temperature, said actuating member closing said second switch when the temperature of the cooling unit rises to above freezing temperatures

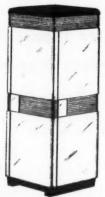
2,459,097. PUMP FOR EVAPORATIVE AIR COOLERS OR THE LIKE. Gene C. Rudd and Cornelius B. Wright, Port Worth, Tex. Application April 5, 1947, Serial No. 739,710. 1 Claim. (Cl. 103—87.)



A pump comprising a base, a tubular housing vertically mounted on said base, a motor mounted within the upper end of said tubular housing and spaced from the wall thereof, shafts extending vertically above and below said motor and driven thereby, a cup shaped combination fan and cover secured to the upper end of said shaft, vertically disposed louvers in the periphery of said fan, an impeller housing mounted beneath said base, impeller blades within said impeller housing and secured to the lower end of said shaft, fluid inlet means in said base and communicating with the interior of said communicating with the interior of said impeller housing, fluid outlet means in said base over said blades and asymetrically positioned with respect to the center thereof, and the said blades being angularly disposed for directing the action of the same toward the said outlet. tion of the same toward the said outlet.

DESIGNS

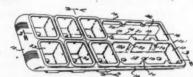
152,372. DESIGN FOR A SPACE COOLER CABINET OR THE LIKE. John H. Schreiber, St. Louis, Mo., assign-orto General Engineering & Manufactur-ing Co., St. Louis, Mo., a corporation of Missouri. Application April 1, 1947, Serial No. 138,097. Term of patent 7 years. (Cl.



The ornamental design for a space collection cabinet or the like, substantially as shown and described.

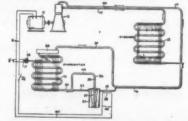
Week of January 18

2,459,168. ICE TRAY. Douglas L. Joce-yn, Detroit, Mich. Application Oct. 25, 945, Serial No. 624,496. 11 Claims. (Cl. 62—



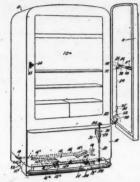
11. A liquid freezing device, comprising a generally rectangular frame having frame members extending around the four sides thereof and also having a bottom formed integrally with an upstanding rib extending centrally of the bottom the major length thereof, a number of separate individual liquid freezing receptacles adapted to rest on said bottom at opposite sides of the rib, and a plurality of anaced projections integral with the frame spaced projections integral with the frame bottom and extending into recesses in the bottoms of the receptacles for positioning receptacles and restraining them against

2,459,173. DEFROSTING MEANS FOR REFRIGERATION APPARATUS. Graham S. McCloy, Springfield, Mass., as to Westinghouse Electric Corp., Pittsburgh, Pa., a corporation of Penn sylvania. Application Feb. 5, 1946, Serial No. 645,612. 12 Claims. (Cl. 62—3.)



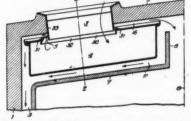
1. In a refrigerating apparatus, the combination of a compressor, a condenser, a vessel adapted for accumulating and holding refrigerant liquid in an inactive state during the normal operation of said apparatus, an evaporator, a first conduit connecting said compressor with said condenser, a second conduit connecting said condenser with said vessel, a third conduit connecting said vessel with said evaporator, a fourth conduit connecting said vessel with a third conduit connecting said vessel with said evaporator, a fourth conduit connecting said evaporator with said compressor, at least a portion of said fourth conduit being in heat exchange relationship with the refrigerant vapor compressed by said compressor, said apparatus being arranged to produce refrigeration by means of said evaporator and heat dissipation by means of said condenser during normal operation, and actuating means for producing abnormal denser during normal operation, and actuating means for producing abnormal operation of said apparatus to defrost said evaporator, said means being sidapted to discharge the refrigerant liquid from said vessel through said third conduit, said vessel, when being discharged supplying sufficient refrigerant liquid to flood both said evaporator and said portion of the force of the fo flood both said evaporator and said por-tion of the fourth conduit.

2,459,190. REPRIGERATOR LATCH. Arthur C. Shuart, Evansville, Ind., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware. Application March 14, 1945, Serial No. 682,732. 10 Claims. (Cl. 292—255.)



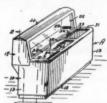
1. Latch mechanism for a hinged door of a cabinet including a latch bolt secured of a cabinet including a latch bolt secured to said door, a treadle mounted on said cabinet and having a tread traversing substantially the entire front of said cabinet below said door, means operatively connecting said treadle to said latch bolt, said means including a vertical element operatively connected to said treadle and passing upwardly through said door on the hinged side thereof, and a horizontal element connected at one a horizontal element connected at one end to said vertical element and at its opposite end to said latch bolt.

2,459,211. REFRIGERANT CONTAINERS FOR REFRIGERATOR CARS. Edwin R. Battley and George E. McCoy, Montreal, Quebec, Can. Original application Jan. 28, 1945, Serial No. 574,790. Divided and this application March 17, 1947, Serial No. 735,105. 3 Claims. (Cl. 62—17.)



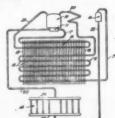
1. In a refrigerator car having a hatch opening in the roof thereof and a hatch frame therein extending below said roof container disposed below and spaced from container disposed below and spaced from said roof to provide air circulating space therebetween and having a filling opening therein registering with said hatch opening, and means to prevent liquid within the container from surging out of the filling opening into said space during service movements of the car without preventing air communication between said hatch opening and said air circulating space, said means comprising an upsaid natch opening and said air circulating space, said means comprising an upstanding flange around said filling opening and a separate collar secured to said flange in spaced relation to said frame and having a part extending into the container to retard surging of liquid therein through said filling opening, said flange and collar overlapping said hatch frame.

2,459,243. REFRIGERATED DISPLAY CABINET. Max W. Schwartz, New Castle, Pa. Application May 21, 1945, Serial No. 595,037. 5 Claims. (Cl. 62—89.5.)



1. A cabinet of the character described, comprising a lower body section having horizontally disposed and transversely slidable lids provided with transparent portions, an upper section extended above the lower section including a compartment separated from the lower section and ment separated from the lower section and having a permanent transparent front panel, refrigerating means positioned in the lower section, and means for circu-lating cold air from the lower section to the upper section, said cabinet having a assage for the return of the air to the lower section.

2,459,311. MOTOR COOLING SYSTEM.
Gordon M. De Jarlais, Evansville, Ind.,
assignor to Seeger Refrigerator Co., a
corporation of Minnesota. Application
May 15, 1946, Serial No. 669,756. 5 Claims.
(Cl. 62—115.)



(n

bu th

tiv

Th

cra

on

ava

wh

sur The

str

hig

1. The method of refrigeration which 1. The method of refrigeration which comprises withdrawing vapor from an evaporator directly into a compressor located outside of a motor housing, comprising the vapor and discharging the superheated and compressed vapor directly from the compressor into a preliminary cooling condenser, partially condensing the vapor and consolidating the oil entrained therewith into droplets in said condenser and conducting the parsaid condenser and conducting the par-tially condensed vapor and oil from the condenser into an upper part of the housing of a motor driving said com-pressor and having a housing separate from said compressor, causing the condensed liquid refrigerant and oil to run down in the motor housing to cool the motor parts, the refrigerant again evaporating in this cooling operation, and the oil being separated and collected in an oil sump, and discharging the vapor substantially without oil from the top of the motor bousing into a main condenser. the motor housing into a main condenser, where it is cooled and liquefied for use in the evaportor.

(To Be Continued)

PORCELAIN ENAMELLED

- WHITE -

228 Lalor St., Trenton, N. J.

Subscribe Now

Receive the greatest trade paper in the Industry-AIR CONDITIONING & REFRIGERATION NEWS. Published every week. Brings you latest news and vital information on household refrigeration, commercial refrigeration, air conditioning, home freezers; manufacturing, distributing, retailing, servicing, and contracting. Only \$5 per year, 52 issues.

Fill in coupon and mail today

	Vest Fort Street, Detroit 26, Michigan
	the NEWS for one year.
☐ \$5 enclosed	☐ Bill me ☐ Bill the company
Name	
Company	
Street	
Cltv	Zone State

Refrigeration Problems

and their Solution

by Paul Reed

For Service and Installation Engineers



Paul Rec

Refrigerants (1)

Prior to World War I, the great bulk of refrigeration equipment was in ice-making plants, cold storage warehouses, and breweries—applications commonly referred to as Industrial Refrigeration. They required large tonnages and large machines, one installation frequently using several hundred horsepower.

In the early days, steam engines were used to drive the compressors, pumps, and other auxiliary apparatus. Control was almost entirely manual. Operation was continuous, with temperature control obtained by adjusting the hand expansion valves to vary the amount of active area of the evaporator coils in the individual rooms or tanks. This type of equipment required full 24-hour attendance by operating engineers, firemen, oilers, and maintenance men.

The compressors were massive and ruggedly built, and were operated at slow speed; in fact, anything over 100 r.p.m. was referred to as "high-speed."

AMMONIA, THE EARLY REFRIGERANT

Ammonia was the refrigerant used in practically all of this early industrial equipment. Carbon dioxide, or "carbonic acid gas" as it was often called, was also used to some extent—about which more later. Ammonia was easily and simply made at only a few cents per pound as a packinghouse by-product, and was available from several sources.

In those days, the most impelling consideration that led to the choice of ammonia for industrial refrigeration equipment was that it was readily available; but it also had such other favorable physical and thermodynamic characteristics that, along with its low cost, they resulted in ammonia being the favorite refrigerant for industrial refrigeration applications.

It will be noted that its "efficiency" was not mentioned; this is because the various refrigerants have so nearly the same efficiencies that the selection and choice of what refrigerant to use for a particular application or with a particular type of equipment, is rarely based on the inherent efficiency of the refrigerant, but rather on other characteristics which make that refrigerant more suitable for the particular application, or for the particular type of equipment to be used.

OPERATING PRESSURES

The evaporator coils of these industrial applications ordinarily operated at temperatures of 5° F. for ice-making and cold storage and at 15° to 20° F. for beer wort cooling, with a corresponding suction pressure of about 20 p.s.i.g. for the former, and approximately 30 p.s.i.g. for the latter.

Thus, operating suction pressures were always well above atmospheric (not on a vacuum), so "leaks" did not cause air to get into the system, but rather allowed ammonia to escape, which made it easier to find the leaks.

Although the suction pressure was practically always above 0° gauge, it was rarely more than a comparatively few pounds above atmospheric. This made it not too difficult to construct tight packing glands around the piston rod on the open type crankcase, and around the crankshaft on the enclosed crankcase compres-

Normally, condensing water was available at from 60° to 85° F., which resulted in condensing pressures of from about 115 to 200 p.s.i.g. These were not too high to permit the use of comparatively light and, therefore, relatively inexpensive construction of condensers, receivers, liquid lines, and other vessels and piping for the high-pressure side of the system. So both the low and high pressures were in satisfactory operating and design ranges.

COMPRESSION RATIO

Under "Standard Ton" conditions, that is, with a 5° evaporator and 86° condensing, the suction and discharge pressures are 19.6 and 154.5 p.s.i.g., respectively (34.3 and 170.2 p.s.i.a.), and the ratio of compression is slightly under 5 (170.2 + 34.3).

A high compression ratio is undesirable as it requires very close fits between the piston and the cylinder; also, the effect of clearance volume between the top of the piston and the head of the cylinder is increased by a high compression ratio.

Very close tolerances in fits require more accurate and consequently more expensive construction and this was even more important in those early days when machine shop practice had not attained the high degree of precision that is possible today.

A compression ratio of 5 is moderate and does not call for ultra precision machining. A high compression ratio also affects discharge valve design as a quicker cut-off is required at the end of the compression stroke.

Thus, for those early industrial applications, ammonia was quite satisfactory as to availability, cost, suction pressure at the evaporator temperatures involved, condensing pressures with condensing water commonly available, and as to compression ratio.

FREEZING TEMPERATURE

Ammonia in the evaporator exists as a liquid and as a vapor. If liquids become cold enough they freeze into a solid. Water, for example, freezes to a solid at 32° F. (at atmospheric pressure). So water cannot be used as a refrigerant if the evaporator temperature is below 32°. The freezing point of liquid ammonia is -107.9° F., but ice making or cold storage was usually at about 5° or sometimes as low as zero, which was still above the freezing point of ammonia, so there was no danger of the ammonia freezing to a solid in the evaporator coils.

CRITICAL PRESSURE

If liquids are heated hot enough they turn into a vapor. Water, for example, turns into steam at 212° at atmospheric pressure. If, however, we put a pressure of 5 p.s.i. on the water, it must be heated to 227° before it will boil.

The boiling pressure is the same as the condensing pressure and whether boiling or condensation occurs depends upon whether it is a gas or a liquid and upon whether heat is being added or taken away. Thus, if we have water at 212° (at atmospheric pressure) it turns to steam at 212° if heat is added; then if heat is taken away, that same steam at 212° turns back to water. If we have steam at 5 p.s.i.g. and at 227° and we cool it, it condenses to This same true on up through the pressuretemperature scale. If heat is removed from the steam it condenses to a liquid.

However, you can finally get to a high enough pressure that even though heat is removed from the steam—that is, it is cooled, it still refuses to condense and persists in remaining a vapor. This point is called its "critical pressure." For water, the critical pressure is 3,211

Thus, if a vessel containing saturated steam at 3,000 p.s.i.g. pressure were cooled below about 696°, the steam would condense; but if the steam were at a pressure of 3,212 p.s.i.g. or over and were cooled, it would not condense but would stay as a vapor, until the pressure was dropped below its "critical pressure" of 3,211 p.s.i.g.

The critical pressure of a refrigerant must be above any condensing pressures that would be encountered—otherwise the high pressure vapor just would not condense, so the refrigerating machine would simply cease to function.

Moreover, if the ordinary condensing pressures are up near the critical pressure, the amount of power required to compress the refrigerant is

excessive, so the critical pressure must be a great deal above the normal operating condensing pressure.

The critical pressure of ammonia is 1,636 p.s.i.g., which is far above normal operating pressures which are usually less than 200 p.s.i.g. Therefore, the critical pressure of ammonia is satisfactory.

CRITICAL TEMPERATURE

We mentioned that if we had a vessel of saturated steam at 3,000 p.s.i.g. with its corresponding temperature of 696°, and we cooled the steam, it would condense. We could have also made it condense by increasing the pressure on it to say 3,100 p.s.i.g. It would then condense, for the saturation temperature corresponding to 3,100 p.s.i.g. is approximately 701°.

If, however, the steam is at a temperature of 706.1° F. or higher, we could increase the pressure as much as we like and the steam would refuse to condense and would stay a vapor. The 706.1° is called the "critical temperature" for it is the temperature above which a vapor will not condense, even though we exert tremendous pressure on it.

The critical temperature of a refrigerant must be sufficiently high that it will be far above normal condensing temperatures, otherwise the hot gas from the compressor would simply not condense, regardless of how high the pressure might be

Also, as was true of the critical pressure, ordinary operating condensing temperatures should be far less than the critical temperature. If the critical temperature is only a little above normal operating temperature, power usage is excessive.

The critical temperature of ammonia is 271.2°, which, while lower than that of some of the present-day refrigerants, is sufficiently high to get it well above normal operating condensing temperatures and thereby prevent excessive power usage from

DISCHARGE TEMPERATURE

And while referring to operating pressures and temperatures it might be well to call attention to "discharge temperature." The low-pressure vapor is compressed by the compressor and while having its pressure raised, it also has its temperature raised.

The discharge temperature of a refrigerant varies according to discharge and suction pressures and to suction temperature, and in actual practice according to the efficiency of the compressor.

But even with conditions identical, the discharge temperatures of the different refrigerants vary one from

It is not desirable for a refrigerant to have a characteristically high discharge temperature at the suction and discharge conditions under which the equipment normally operates, for a high discharge temperature may cause breakdown of the oil and result in the formation of carbon and sludges.

At standard ton conditions, at 5° evaporator and 86° condensing, the discharge temperature of ammonia is 210°, which is the highest of the commonly used refrigerants except water. Considerable care must therefore be used in the selection of the compressor oil for enclosed crankcase compressors if ammonia is the refrigerant.

(To Be Continued)

A MAJOR EASTERN MANUFACTURER OF DISPLAY CASES & COOLERS SEEKS A SALES REPRESENTATIVE FOR EASTERN UNITED STATES

We're looking for an experienced Case Salesman with a following among distributors. About 60% of the total area east of the Mississippi is now adequately covered. We want somebody who can line up distributors and dealers in the balance of this territory. Here's an opportunity for real earnings for the man who's pot what it takes to fill this job properly. All replies will be treated in strictest confidence, so write fully of your present connections, experience, etc.

Apply Box 3130, Air Conditioning & Refrigeration News.

CLASSIFIED ADVERTISING

POSITIONS WANTED

AIR CONDITIONING engineer; three years experience with contractor: field surveying, designing and laying out air conditioning and refrigeration installations to 100 tons. Commercial, industrial and residential work. Some estimating and supervision. Graduate mechanical engineer, presently employed, desire metropolitan New York location. BOX 3085, Air Conditioning & Refrigeration News.

REFRIGERATION SERVICE engineer: 14 years continuous experience, all types refrigeration and air conditioning equipment. 4 years foreman on present Job. 35 years old, now employed on East coast. Desire to locate in Tennessee; preferably Chattanooga, Knoxville, Nashville or nearby vicinity. BOX 3132, Air Conditioning & Refrigeration News.

REFRIGERATION, AIR conditioning mechanic. 20 years experience. Fully qualified to supervise, install or service any machine including plumbing, wiring, and welding. Considerable experience with Carrier, Westinghouse, Worthington, and York. All applications. Prefer south or South America. BOX 3134, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

MANUFACTURER'S REPRESENTATIVE: 30 to 45, by large manufacturer of commercial condensing units, packaged and central type air conditioning units, to establish dealers in southern California. Permanent. Warehouse stock, commission. M.E. graduate or equal with application and dealer contact experience. Must be permanent resident, know territory and own car. State all qualifications first letter. BOX 3135, Air Conditioning & Refrigeration News.

MEN WANTED: experienced application engineer and estimate on ammonia and "Freon" refrigeration and air conditioning, including duct work and sub-contracts. Mostly an office job. Please supply details of experience, references and salary requirements in first reply as position now open. BAKER REFRIGERATION CORPORATION (formerly Baker Ice Machine Company), 4110 Commercial Avenue, Omaha 11, Nebraska.

SALES MANAGER: excellent opportunity for a thoroughly experienced air conditioning sales engineer to take complete charge of air conditioning department, handling a nationally known and well advertised line of self-contained packaged units. Permanent position for man of proven ability. BENT DISTRIBUTING COMPANY, 4012 W. Beaver Street, Jacksonville, Florida,

CENTRAL WASHINGTON old established commercial refrigeration and air conditioning distributor and contractor has opening for experienced sales engineer. Large rich territory and best of nationally advertised equipment franchises. This permanent position affords top salary, commission and car expense. Reply assuring me you are reliable, experienced and of proven ability. Write BOX 3116. Air Conditioning & Refrigeration News.

MANUFACTURERS' REPRESENTATIVES: wanted by nationally known
manufacturer of commercial electric water
coolers for office, factory, etc. Men must
have experience and call on distributors,
dealers, water companies, and rental companies. Compensation, commission. State
fully background, experience, lines currently handled, territory covered and
references. Several choice territories available. BOX 3127, Air Conditioning & Refrigeration News.

SALES MANAGER & district men experienced in supermarket engineering and installations to take complete charge of sales for established manufacturer of adjustable shelving and fixtures distributing nationally. Excellent opportunity. Our salesmen are informed of this advertisement. Write BOX 3131, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

SURPLUS "FREON" valves! 1,500 new clean valves priced under jobbers cost, freight prepaid. Kerotest # 461S 2½" wing-cap globe @ \$19.76. # 574S 1½" wing-cap globe @ \$8.55. #6981S ¾" angle packless @ \$3.00. #2355 ¾" receiver valves @ 75¢. #51S300 ¾" relief @ \$2.00. ANCHOR SUPPLY CO., 1742 Fourth South. Seattle 4. Wash.

ONE—F24FR FREEZ-E-FEX low temperature unit complete with motor, 220/1/60 and an electrical defrost apparatus, \$600.00. One—F12FA Fan-e-Fex heavy duty unit cooler, 110/1/60 motor, \$100.00. Two—2 H.P. air cooled York condensing units, 220/1/60 \$300.00 each. One—York 3'6" x 6'6" super-freezer overlap door, 6 inch corkboard insulation, left hand hinge, \$200.00. One—York 3'6" x 6'6" freezer door, 6 inch corkboard insulation, left hand hinge, \$135.00. All of this equipment is brand new, in its original crate. All price F.O.B. Erie, Pennsylvania. Write APFEL ENGINEERING COMPANY, P.O. Box 1013, Erie, Pennsylvania.

FOR SALE: close-out on thermostatic expansion valves less than distributors cost. 25 Detroit valves, model 673, "Freon," sulphur, and methyl, \$8.50. 18 model 205C methyl Automatic, \$7.00. 10 model 894 Detroit "Freon," \$6.00. 4 Alco air conditioning 2½ ton methyl valves, \$9.00. BAKER'S SERVICE, Moira, N. Y.

RECORDING THERMOMETERS, Bristol, remote 7 day electric, \$69. Thermostats, Mercoid, minus 10° to plus 40°, \$15. Heat exchangers, Acme, 3 ton © \$27; 2 ton © \$20. Tunnel blast freezer complete 1,800 basic rating, \$535. New 1 H.P. to 7½ H.P. water cooled Universal and Copelands at less than distributor's cost. Used Westinghouse 60 ton condensing unit—bargain! 3'6" x 6'6" Jamison double batton automatic close doors with track heads for 7'2" track, 1½" cork board insulation at \$95 each. All new in original factory crates. BIMEL COMPANY, 2600 Colerain Ave., Cincinnati 14, Ohio.

SEALED UNITS rebuilt and exchanged. Prompt service on Coldspot (sealed & semi-sealed). Chieftain, Gale, Tecumseh, Norge and many others. One year guarantee. Write for price list and shipping instructions. BRIGHTON, 3906 Joy Rd., Detroit 6, Michigan.

SPECIAL CLOSE-OUT on brand new freezer plates, coils, and units. Yoder plates—19" x 31" @ \$3.75; 21" x 72" @ \$1.70.0. Dole plates—22½" x 33" @ \$4.25; 24" x 79" @ \$8.00; 22" x 61" @ \$6.00; 22" x 72" @ \$7.00. (All plates have ½" male or female end connections.) Bush finned coils 76" x 16" x 2½" 6 tube single row @ \$9.00. Chrysler Airtemp air cooled units—½ H.P. @ \$54; ½ H.P. @ \$60; ½ H.P. @ \$72; ½ H.P. @ \$102; 1½ H.P. @ \$168. Send deposits to GENERAL REFRIGERATORS CORP., 678 Broadway, New York 12, N. Y.

CLOSING OUT forged brass fittings below cost. ½" IPS x ½ flare, # 445 Kerotest angle valves, 95 cents each. ½" IPS x ¾ flare, 90° elbows, 25 cents each, F.O.B. Chicago. C. B. GOODMAN & CO., 6459 S. Morgan St., Chicago 21, Illinois.

MILLS COUNTER freezers: 5 gallon, self contained and 60 gal. hardening cabinets at more than 50% discount due to a favorable buy. New and in original crates. Contact by writing INTERSTATE TRADING CO., Dep't D, 525 Broadway, New York.

CLOSE OUT—below factory cost. Brand new bottle-type electric water coolers in original crates. 115 volts, 60 cycle, A. C., equipped with Universal and Tecumseh hermetically sealed units. Hammer-tone brown with porcelain finish top. Guaranteed perfect; \$89.50 each, F.O.B. Chicago. Brand new ½ ton window-model air conditioners in original crates—complete with installation kits, walnut finish. 115 volts, 60 cycle, A. C., Universal open-type condensing units; \$184.50 each, F.O.B. Chicago. Terms—C.O.D. Quantity limited. LERN SALES CO., 9 S. Francisco, Chicago, Ill.

FOR SALE 3-HP water cooled, "Freon" Copeland machines with 3-HP 3 phase motors \$248.00 each. Model 495 5-HP Copeland water cooled "Freon" machines equipped with 26 Copeland compressors and 5-HP 3 phase motors \$278.00, all F.O.B. Kansas City, Missouri. These machines are brand new in original Copeland crates and carry the one year factory guarantee. 10% deposit required with all orders, balance C.O.D. THE NAT CORPORATION, 2710 McGee, Kansas City, Missouri.

CHIEFTAIN HERMETICS (new): ½
H.P. \$42.00 ea.; without condenser \$39.00; in lots of 10 \$37.00 ea.; in lots of 10 less condenser \$34.00 ea. New thermostatic expansion valves: Sporlan Stand. ½ T M % x ½ \$5.50 ea.; Sporlan Stand. ½ T F 30 10° super ¼ x ¼ P. \$4.50 ea.; Detroit 893 ½ T F 30 10° super ¼ x ½ P. \$4.50 ea.; Detroit non-adj. 893 X ½ T F 15 3° super ¼ x % for home freezers or domestic \$1.50 ea. Seals, GE compressor parts and fittings at ½ price. Send for surplus sheet. NORTHLAND REFRIGERATION COMPANY, 1742 Wabansia Avenue, Chicago 22, Illinois.

SUBJECT TO prior sale: Hermetic Chieftain units—¼ H. P., \$44.50; ½ H. P., \$48.50. Other well known hermetics: ½ H. P., fan cooled, \$52.50; ¼ H. P., fan cooled, light duty, \$57.50; ¼ H. P., fan cooled, light duty, \$57.50; ¼ H. P., fan cooled, \$69.50. Open units, standard makes: ¼ H. P., \$54.50; ½ H. P., \$64.50; ½ H. P., \$64.50; ½ H. P., \$64.50; ½ H. P., \$64.50; ½ H. P., \$84.50. Above prices quoted on lots of six. All open units are 60 cycle, single phase. All above units new, carrying factory warranty. Write for unit list. Penn type 260 Apol low pressure control, \$4.25. Penn type 262 Apol high pressure control, \$4.25. Minneapolis-Honeywell dual pressure control, \$4.25. Minneapolis-Honeywell dual pressure control, \$4.50. Detroit Lubricator low pressure control, \$4.50. Superior heat exchanger, 13" over-all, %" x %", \$4.25. Mueller heat exchanger, 14\\(\frac{1}{2}\)" over-all, \(\frac{1}{2}\)" x \(\frac{1}{2}\)", \(\frac{1}{2}\)" over-all, \(\frac{1}{2}\)" x \(\frac{1}{2}\)", \(\frac{1}{2}\)" are over-all, \(\frac{1}{2}\)" x \(\frac{1}{2}\)", \(\frac{1}{2}\)" or 300\(\frac{1}{2}\), with corresponding temp scale with red warning hand and mounting holes, \(\frac{1}{2}\). S. Cientific Instrument Co. dial thermometer, \(\frac{1}{2}\)" face, 100\(\frac{1}{2}\) compound and 300\(\frac{1}{2}\) pressure, temp, scale, recal, and mounting holes, \(\frac{3}{2}\). S. Ranco type KW-412 cold control complete, \(\frac{3}{2}\). Cold plates 1—30" x 55", 2—30" x 64", 3 to a set, \(\frac{3}{2}\). 6.0. 1—5 lb. can Davison refrigeration silica gel, \(\frac{3}{2}\). MALTER W. STARR, 1207 George Street, Chicago 13, Illinois.

PRANCHISES WANTED

SALES ENGINEER—Los Angeles—wants one additional outstanding refrigeration or air conditioning accessory line to sell jobbers and manufacturers in California and Arizona. Straight commission. Unexcelled references and outstanding selling record. Warehouse service available. Must be reputable manufacturer and good product. Write: EDITOR, Air Conditioning & Refrigeration News.

WELL ESTABLISHED manufacturer's agent covering southern New Mexico and Texas, desires to represent manufacturers on the following lines, direct to dealers and distributors: commercial display cases, fixtures, scales, slicers, saws, cuttlery. Consider other lines kindred to commercial refrigeration dealers. BOX 3133, Air Conditioning & Refrigeration

BUSINESS OPPORTUNITIES

NEW ENGLAND area. Appliance, commercial, sales & service, established fifteen years. Sales, \$300,000 1948. Small city. Good profits. Owners would assist purchasers part time first year if desired. To purchase vehicles, inventory, apartment house, store, minimum of \$35,000 cash needed; bal. 10 years. BOX 3123, Air Conditioning & Refrigeration News.



General Electric "Shirt Sleeve" Team No. 1 symbolizes motto. Left to right, E. S. McKay, J. P. Turner, Vice President Harold F. Smiddy, W. F. R. Karsten, W. G. Cox, H. M. Brundage, and J. G. Mooney.

G-E Organizes System of Parts Depots--

(Concluded from Page 1, Column 3) to the depots which will supply them to distributors, service engineers, and dealers—whoever wants them. Inwarranty replacements will also be handled through the depots."

Distributors attending the sales meetings, during which the air conditioning department's "Shirt Sleeves Selling Program for 1949" was disclosed, were also told that the department has:

 Adopted a 90-day price protection policy on commercial refrigeration and air conditioning equipment and water coolers.

2. Added three new packaged air conditioners $(2, 7\frac{1}{2}, \text{ and } 10 \text{ hp.})$ to the 3 and 5-hp. sizes.

3. Prepared new advertising and sales promotion programs on commercial refrigeration, packaged air conditioning, condensing units, water coolers, and automatic heating.

The meetings were staged by two teams from Bloomfield who visited 18 cities in two weeks. One team headed by Harold F. Smiddy, vice president and general manager of the air conditioning department, covered the east and midwest, and the other, headed by Harold B. Donley, manager of marketing, covered the south and west.

After the meetings were opened with talks by district managers and team leaders, distributors were divided into groups for the rest of the morning and afternoon sessions.

In addition to these sessions, evening meetings were held at each location with architects, large-scale contractors, and consulting engineers interested in air conditioning. G-E "Personal Weather Control" systems were featured at these meetings.

COOPERATION ON LARGE JOBS

Smiddy and Donley emphasized, during evening sessions, that the basic policy of the company is to cooperate with consulting engineers, architects, and contractors, and not to compete with them in the field of large air conditioning installations.

In their talks to distributors, the



----MASTER-----Food Conservators

have the call. This Modern Food Conserver has many unusual advantages. Sold through distributors of refrigeration and insulation.

Write for particulars

Master Manufacturing Corp.

181 Main St. Sloux City 4, Iowa

Over 1,500,000 In Use

of Parts Depots -
two team leaders stated that the purpose of the meetings was to explain the policies of the new management of the air conditioning department

in terms of how they would affect

the distributors. They said the 10

elements of G-E policy are:

"To be a leader, to be business-like, to be efficient, to be profitable, to be competitive, to be aggressive merchandisers, to build strong distribution, to have goals—and surpass them, to be stable, and to be sure that the public CAN put their confidence in General Electric."

Theme of the meetings was "Back to Shirt Sleeve Selling In '49." To dramatize this keynote, speakers rolled up their sleeves and went into action. Distributors were urged to do the same, figuratively speaking, in conducting their 1949 sales programs.

"We're back to shirt sleeve selling in 1949, back to the days of competition," distributors were advised. "G-E expects you to roll up your sleeves and go after business. G-E expects you to sell fast, sell hard, sell profitably. . . ."

During these sessions, department representatives discussed refrigeration, air conditioning, and heating in terms of national and local sales objectives, product lines, markets, and sales promotion and advertising. They particularly stressed that air conditioning was receiving increased acceptance and that in the next few years many thousands of commercial installations would be made, according to surveys.

HOW PRICE POLICY WORKS

G-E's 1949 commercial refrigeration program emphasizes "new low prices, new price protection, new design products, and a full belt of selling ammunition." Intended to provide added security against a changing market, the price protection policy works as follows, the department informed distributors:

"Any unit of packaged commercial refrigeration ordered from General Electric within the 90 days preceding a price reduction of the particular unit, will be billed to you at the reduced price—or—you will be credited by General Electric for the amount of the reduction."

The commercial refrigeration packaged promotion program is designed to help sellers reach specific businesses and markets. A two-color, full-line broadside and a five-piece direct-mail program have been prepared for the commercial market, a two-piece program (one on milk coolers and the other on food freezers and storage refrigerators) for the farm market, and a mailing piece on the small food freezer, plus a booklet on freezing, for the home market.

In addition, the packaged program includes "Reply-O-Cards," follow-up material, and point-of-sale material in the form of a store display kit.

Two models of frozen food merchandisers, six models of dry-storage beverage coolers, a 20-cu. ft. food freezer (a 15-cu. ft. model will be available), eight sizes of standard-temperature and eight sizes of low-temperature walk-in rooms, eight models of milk coolers, and five models of storage refrigerators comprise the 1949 commercial refrigeration products.

The new 2, 7½, and 10-hp. packaged air conditioners added to G-E's "FD" line this year are designated,

respectively, as models FD-20D, FD-75D, and FD-100D. The former is designed for small stores and offices, and the latter for larger jobs such as

fheaters, bigger stores, and industry. G-E's packaged air conditioning program calls for "real, down-to-earth merchandising." To get its outlets off to a good start, the department was preparing a packaged merchandising plan.

Under this plan, G-E will advertise extensively in publications read by businessmen, there will be a sales kit with numerous direct-mail pieces, and several new booklets are coming "to help you point out the specific benefits to each kind of business."

"Of top importance," the department said, "are the tip sheets which will help your salesman talk to each prospect in his own terms. These sheets will enable salesmen to figure jobs and estimate an approximate price covering installation and service in less than two minutes."

DEPOTS WILL HELP SALES

With regard to condensing units, G-E is stressing that its new wholesale-replacement parts depot plan will result in increased sales.

It says the plan will mean more sales for wholesalers "because now they'll be able to sell G-E units and parts," more sales for distributors "because they will benefit from a much greater promotional effort," and more sales for fixture manufacturers "because they will now be able to assure good service and speedy in-warranty replacement anywhere in the country—the small manufacturer will be able to operate nationally."

The new condensing unit promotion campaign, according to G-E, "will be directed at the independent service engineers and dealers on one level, and, on another, it will help to create user demand . . . in selected principal markets."

Sales meetings were told that the company "has geared up for its greatest year in water cooler sales." It was reported that the new water cooler plant in Bowling Green, Ky., is now in full operation, turning out the greatest volume in G-E history.

Here's what the water cooler advertising and promotion program includes: A "steady stream" of advertisements in major national publications encouraging phone calls to distributors and dealers listed in the classified directory; direct-mail pieces; the G-E "Camel" booklet, telling the "benefit" story, to be left with the prospect after a sales talk; and a sales training book and a 17-page sales presentation.

On the subject of water coolers, the department told distributors:

"Your prices are competitive. You are assured of price protection, and you will have no competition from G-E, which sells only to national users.

"General Electric intends to work with its present distribution, so long as that distribution digs in and does a good selling job. But, last year, 15% of our franchised water cooler distributors did 77% of the G-E water cooler volume, while one third did less than one half of 1%.

"To make this the biggest water cooler year—there's no room for zero distributors."

Sea Food Is Air Conditioned

MEMPHIS, Tenn. — York yearround air conditioning equipment was installed in the new Gilmore Sea Food Cafe here by Shelby-Skipwith, Inc., 972 Union Ave. Home Furnishing Groups
Voice Growing Opposition
To Extension of Reg. W

di

0 p

Re

co

me

ga

dri

Bo

wr

car

str

We

pus

war

Giff

tion

dea

mor

mor

true

peri

sitv

and

ERI

defin

mak

taile

ills-

to r

NEW YORK CITY—Opposition to the extension of Regulation W beyond the June 30 deadline is rising among home furnishing stores, it was indicated in recent reports here.

Manfred I. Behrens, Jr., vice president and general manager of Ludwig Baumann, local department store, has asserted that declining sales widely attributed to Federal credit curbs have caused many home furnishing retailers who formerly supported the regulation to oppose its extension. He said he got his information as a result of an informal national survey.

J. Paul Fanning, executive secretary and managing director of the National Association of Bedding Manufacturers, has announced the opposition of his group to extension of the regulation.

He stated that the organization is already taking action to exclude bedding products from control in case the regulation is extended. He said that association representatives will appear soon before the Senate Small Business Committee to prove how Regulation W, by causing sales of bedding to drop has forced production cutbacks and unemployment in the industry.

Roscoe R. Rau, executive vice

Roscoe R. Rau, executive vice president of the National Retail Furniture Association, has indicated that the group's board of directors may take a stand on extension at the board's approaching meeting in Washington, D. C.

